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Ingersoll. The conquest of
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An authentic account of the finding of the

NORTH POLE

by

Dr. Frederick A. Cook :: Com. R. E. Peary, U. S. N.

together with biographies of the explorers
and a brief history of Arctic discovery

by

ERNEST INGERSOLL

Author of

"The Crest of the Continent," "Book of the Ocean," "Wild Neighbors," Etc.

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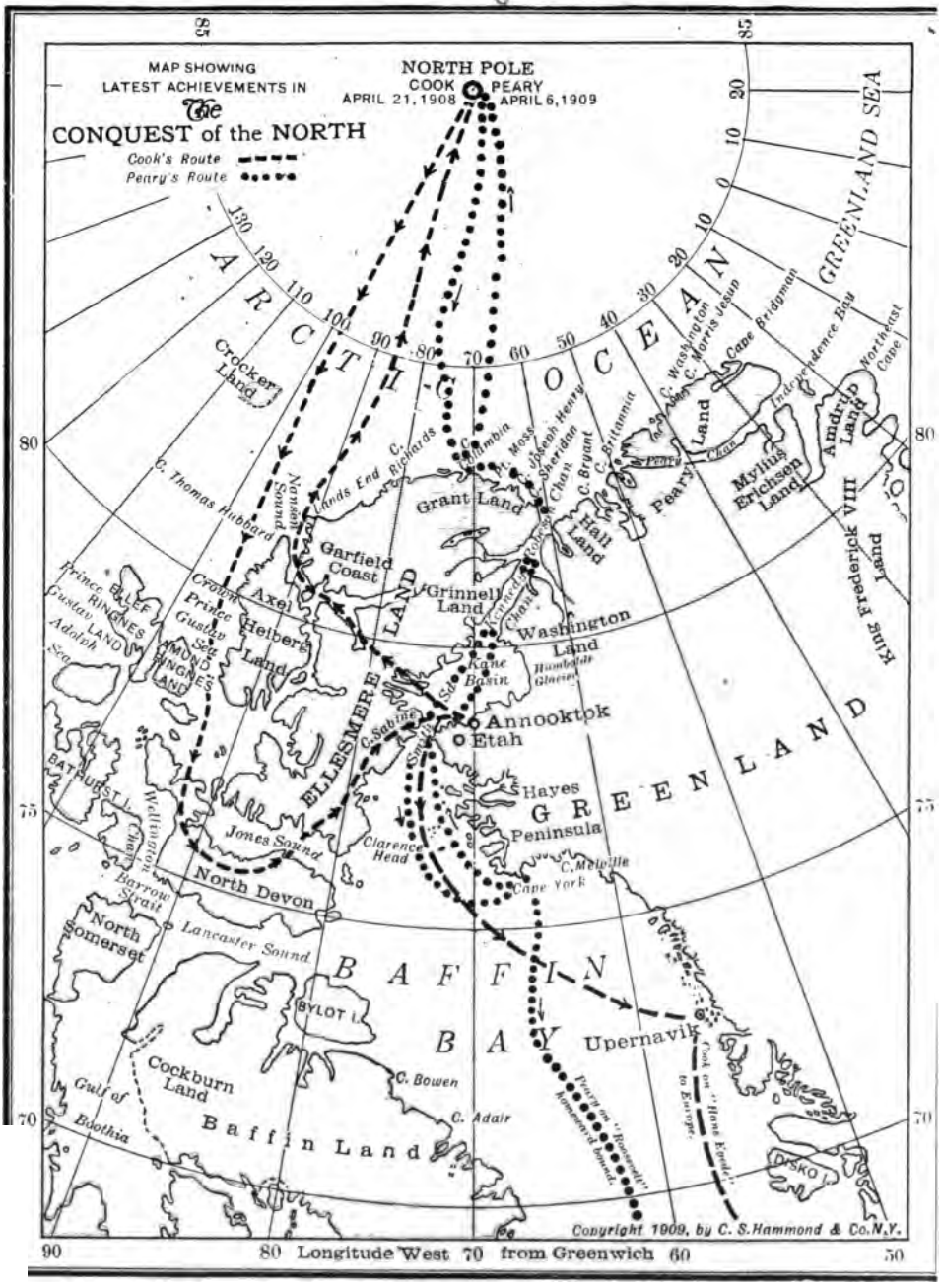

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THE CONQUEST OF THE NORTH

DR. COOK'S DASH TO THE POLE

It would have been hard to conceive of a more dramatic moment in which to thrill the world with the trumpet-blast

The North Pole Has Been Reached

than that in which the announcement came flying to New York, and thence was flashed over the earth, sure of universal attention. Only yesterday, by one mighty stride beyond the groping of a century, and by an unknown man, the heart of the Antarctic Continent had yielded its mysteries. The astonished gaze of millions has just now been focussed upon a village in France where the experiments of a hundred generations have culminated in the actual conquest of the air, and where men are sailing upon the wings of the wind.

The minds of men were aroused to a high pitch of expectation and faith in the power of men to do wonders—to solve problems which the world has worked at age after age; and it is fitting that at that dramatic moment the telegraph should thunder in our ears the discovery of the North Pole; and tell us that the man who snatched this priceless gem of geographical knowledge from ages of ignorance was one of whom the world in general has hitherto known little, but whose name will now be eternally famous—Frederick A. Cook,—an American physician of Brooklyn.

Who Dr. Cook is, and has been, is told elsewhere. How he did the work which has put him among the clever and greatest discoverers of his time, it now remains to tell.

In the summer of 1907, Dr. Cook and Mr. John R. Bradley, of New York, himself celebrated as a traveler and big-game hunter in various parts of the world, entered into a plan to try to plant the American flag on the Northern pole of the earth. The two were old friends. Mr. Bradley was able and willing to furnish a large part of the required funds for the enterprise, and Dr. Cook was willing and has proved himself able to do the work.

The plan was kept secret—there was no boasting or flourish. In Gloucester, Mass., Mr. Bradley found a suitable vessel and had it reconstructed and refitted especially for this purpose. It was ice sheathed, that is, had three inches of white oak above and below the water line, with steel bow and stern plates to keep the ice off, was braced for Arctic work, had new rigging and sails and a 75-horse power gas engine.

It was repainted, and newly named *"John R. Bradley,"* and outfitted ostensibly as a yacht intended to carry a party on a bear and walrus shooting trip to Greenland. In fact, Mr. Bradley did have plenty of good

LATEST PORTRAIT OF DR. F. A. COOK

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sport of this nature before he returned to the United States, as the enrichment by him of the National Heads and Horns Collection attests. The provisions were extensive, for the journey might be long; but no one knew that they amounted to three years' supplies for an Arctic journey, including the now famous barrels of gum-drops to gratify the love-of-sweets characteristic of the Eskimo, as of all savages.

It was announced that Dr. Cook was to go with Mr. Bradley as his guest; and that the sailing-master was to be the well-known ice-navigator, Capt. Robert Bartlett, who had commanded Peary's vessel *Roosevelt,* and who took with him his nephew as mate. All was ready, and the *Bradley* sailed from Gloucester on July 3, 1907.

The departure of the party excited very little attention, for there was nothing about it which looked like an "Arctic expedition."

In the latter part of August, 1907, the yacht reached the limits of navigable water in Smith Sound, at the upper extremity of Baffin Bay, on whose Eastern shore is the often-mentioned harbor and landing-place called Etah, in latitude 80 deg. Near there, at a shore point called by the Eskimos Annooktok, all the provisions and equipment were finally landed, and Dr. Cook was left alone, while Mr. Bradley and the yacht turned back to the United States, bringing letters which contained the first intimation of the great purpose in view. Even Captain Bartlett had not known of it until Etah was reached, and then discouraged the bold adventurer, on account of his lack of help.

The same feeling prevailed at home among the friends of Dr. Cook and other persons interested in Arctic enterprises; but Mr. Bradley answered that a great party and expensive furniture were a hindrance rather than a help in such work as was contemplated; and declared that the total cost of the whole affair was less than $50,000, much of which came from Dr. Cook's own pocket, at the risk of poverty hereafter.

"I cannot see" Mr. Bradley told the

DR. COOK TRAVELLING ON SKEES

critics, "the good of spending $200,000 or $100,000 on an expedition of this kind. What are you going to do with it? All you want when you have established your base of supplies is thirty or forty tons of coal, provisions for three years and dogs and sleds to continue your journey in the early break of the light, which is in February.

"If you had all the supplies that $100,000 could buy there, it would do you no good. All you want is plenty of plain grub and sleds, and if you are lucky and strike smooth ice you are bound to reach the Pole. When you get back to your base of supplies you need not starve. Dr. Cook has lived for a whole year only on seal blubber. His stomach could stand it, and in order to let the other men whose stomachs were weak have the canned goods he was satisfied with the blubber. That's the kind of a man Cook is."

Dr. Cook found that many Eskimos with dogs had assembled on the seashore at Annooktok, some 20 miles north of Etah for their regular bear-hunt, and at once entered into engagements with them to serve him. He speaks their language sufficiently well for all ordinary purposes of conversation, and regards them as a very intelligent people. They had already obtained immense stores of meat, for the season's hunting had been unusually good, and owned many strong dogs. These were circumstances in unusual combination and of the highest value. Therefore Dr. Cook determined to carry out his plan from this base, and this very winter (as he had hardly hoped he would be able to do), and instantly began preparing winter quarters for himself, and a single companion, Arnold Francke, of Hoboken, N. J.

His first care was to set up the small house which had been taken, and to erect a storehouse and workshop, constructed largely out of packing-boxes. They contained good stoves, for which the *Bradley* had left abundant coal, and other means of comfort. Encamped near him, in their customary igloos, or dome-shaped huts of ice, were some 250 Northern Eskimo, several of whom were in his service, and he purchased more than a hundred sledge-dogs.

To settle down at this point, 700 miles from the object of his ambition, when summer time enough remained to have made a long advance toward the north, was contrary to the practice of all preceeding explorers whose endeavor has always been to get as far North as possible for winter

DR. COOK IN ESKIMO GARB WHILE WITH LIEUTENANT PEARY

quarters, and then make a summer "dash for the pole" the next season.

Dr. Cook had come to the conclusion from his experience in lands of cold that he would do well to abandon this theory and practice, and do his travelling in winter. He argued that in winter the ice was firmer and, for this very reason, offered comparatively smooth surfaces for sledging purposes. He insisted that a winter journey, therefore, would not be balked so frequently by open lanes of water and shifting ice floes. He trusted, in other words, to dogs and sledges, rather than to small boats or the uncertainty of seeking transportation by water.

The problem of temperature, with its terrible cold of the Arctic winter, had consideration, but Dr. Cook reckoned that the increased frigidity would have little appreciable effect, while if his men could be kept closer to a regular diet, their vitality would

CAPT. BARTLETT ON THE "BRADLEY" MAKING DAILY OBSERVATIONS WITH DR. COOK'S SEXTANT. MICHAEL WISE MATE AT THE LEFT

be sustained to a remarkable degree. As he had often found it as cold as 60 degrees below zero, he decided that a few additional degrees of cold would make no great difference. As to light, he held that it would be about as bright during the Arctic night as on moonlight nights in the countries of the temperate zone, and, moreover, travelling would necessarily be almost entirely by compass in any circumstance, so that whether it was dark or light made practically little difference.

The confidence he felt in this original and unique plan, which the result has so gloriously justified, appears in the almost jubilant tone of letters which he sent back by Mr. Bradley. One of these to the Explorers' Club of New York, of which Dr. Cook was President, dated August 26th said:

"I find that I have a good opportunity to try for the Pole, and therefore I will stay here for a year. I hope to get to the Explorers' Club in September, 1908, with the record of the Pole. I plan to cross Ellesmere Land and reach the Polar Sea by Nansen Strait. I hope you can induce some of the members of the club to come and meet me at Cape York. Here's for the Pole with the flag."

About the same time Herbert L. Bridgman, of Brooklyn, received this letter from Dr. Cook, similarly dated:

"I have hit upon a new route to the North Pole and I will stay to try it. By way of Buchanan Bay and Ellesmere Land, and northward through Nansen Strait over the Polar Sea, seems to me to be a very good route. There will be game to the eighty-second degree, and here are natives and dogs for the task. So here is for the Pole. Mr. Bradley will tell you the rest."

The winter closed in and all hands were as busy as possible in preparation for the carrying out of these plans. The dogs had

to be broken in, sledges and harness prepared, loads of provisions assorted and prepared for travel, and all the careful preparations made which experience suggested. Meanwhile there was carried on daily the scientific record of observations upon the weather, condition of the ice, characteristics of the people and various other things, which are of so much importance to a full knowledge of the globe. Scouting parties were sent out from time to time to learn the condition of the ice and get game.

This went on without a moment's loss of time until February, 1908. Then all was ready, and his acquaintance with the natives had enabled him to chose those who were to be of his party.

All these preparations exhibit the thoughtful care with which plans were carried out; and in commenting upon them Mr. Bradley scouted the idea which had gone abroad that Dr. Cook's "dash" was on a sudden impulse after he had reached Etah and found conditions favorable. That he did find them favorable was only the fortunate circumstances which enabled him to carry out that first season what he had fully contemplated doing as soon as the situation justified it.

Some people seem to think," said Mr. Bradley, with pardonable impatience, "that we simply went off fishing in any old boat we could get and that the Bradley Polar Expedition was an accident. Nothing of the sort. A man cannot leave New York in a straw hat and expect it to do him for a journey up there very long. We planned the whole thing out carefully after we finally decided to go, as may be seen by the result, although we kept the matter quiet at the start for no one knows how those things will turn out."

Then Mr. Bradley related an incident which shows Dr. Cook's patience and resolution, and explains why he kept at his work, in spite of amazing obstacles and hardships, until he had won the victory:

"We struck off from the ship one day in

JOHN R. BRADLEY AFTER RETURN TO THE "BRADLEY" FROM HUNTING TRIP

By the middle of February, 1908, at the first glimmer of the dawn after the black Arctic night, all was ready, and on the 19th the party left Annooktok, Mr. Francke staying behind to care for the stores. (He remained there until the next October, when he returned to the United States by a supply-steamer.

The party consisted of the intrepid explorer and eleven selected Eskimos, with eleven sledges and more than a hundred and three (103) picked dogs. There were only a few hours of greyness at midnight, as yet; the ice of Smith Sound was rough, and the temperature low; but they pushed on across the Sound to the shore of Ellesmere Land, west of Smith Sound. This is an immense island, ridged by lofty north-and-south ranges of mountains, up which the heavily-laden sledges were wearily dragged through such cold as has rarely been recorded there. The lowest temperature experienced was 83 degrees, Fahrenheit, below zero—not minus 83 degrees Centigrade, as was erroneously reported in the first despatches. One may imagine how the men must have suffered when we learn that several of the dogs were frozen.

Progress was a little easier after the mountains were passed, for then game-trails were found, by following which the speed became rapid.

Ellesmere Land abounds in bears, foxes, musk-oxen, caribou, and polar hares; and in the course of this march seven bears, 101 musk-oxen and 335 hares were obtained, so that comparatively little of the transported food was used. This was the controlling reason in the mind of the explorer when he chose this westerly route—the fact that it would be for a long distance through a game country. Hence he could, and did, keep his dogs well fed. He ran them 400 miles, feeding them fresh meat nearly every day, and consequently had strong teams in good condition when the final hardships and famine of the polar ice had to be faced. It also enabled him to guard against the easterly drift of the ice-sea ahead.

The western coast was reached and the journey continued down the frozen surface of Nansen Sound until at the end of a month its outlet was reached, and the open polar sea spread before the daring party. Thus far their course had been more west than north.

On the northern point of Axel Heiberg Island the party was reduced by sending back six of the Eskimos with half of the

JOHN R. BRADLEY

sledges and dogs. A brief rest was taken, and then on March 21 Dr. Cook began the real straight-north "dash for the pole" across the ice-covered polar ocean, which used to be called the Paleocrystic Sea.

But between the fixed outer pack and the land was a space of more or less open water and moving ice which presented a prodigious obstacle. He had with him 44 dogs and provisions for eighty days. In Eskimo skin boats, he worked his way 60 miles to the north, whence three Eskimos and some dogs returned, leaving Dr. Cook with 26 dogs and two young Eskimo men whom Dr. Cook had decided most fit for his final rush into the unknown. Their names were Etukishook and Ahwelab, and their commander is unstinted in praise of their willing obedience, intelligence and fidelity.

The distance to the Pole was now 460 miles.

Although the always troublesome border

A DANISH SETTLEMENT ON WEST COAST OF GREENLAND

between the land and the outer sea-ice was crossed without great difficulty, the hard wind and torturing cold made progress slow and painful at first; and for several days cloudy skies rendered observations futile. On March 30, however, the skies and horizon cleared somewhat, and disclosed a new land. Observation of the sun here showed the position to be N. Lat. 84 degrees 17 minutes, Long. 86 degrees, 36 minutes.

It may be remarked here that Dr. Cook had with him the very best instruments that are made—better than any one has been able to take heretofore, and, of course, is thoroughly competent to use them. These included a sextant, three chronometers, and a good watch; and they were used daily from this time to the end, so that every day's advance may be precisely plotted on a chart. He also used pedometers, registering the exact distance marched day by day.

Here were visible two bodies of land, which appeared to be two islands, one of which was about 1000 feet high, but it was impossible to spend the time necessary explore them, or trace their coasts. T was the most northern land seen. It not at or near the Pole, as was erroneo stated at first, but between the 84th 85th parallels of latitude. Beyond Lat. degrees no solid land was seen.

Around and before them henceforth nothing but a rough plain of moving and an outlook from the highest point the hummocks shiwed nothing better. sign of life relieved the awful monotor no track of bear or blow-hole of seal, suggestion of wandering bird; no life e in the water, except algæ.

The surface became smoother, and proved day by day as the compass ne checked by astronomical observations, the weary, half-frozen men steadily no The grandeur of his idea, the reason hope of success, the indomitable spirit the man urged the leader forward, and simple fidelity and sturdy courage of men kept the pace. Their food was d

eat and beef tallow. The extreme cold ompelled exertion, especially when the rind blew. The seventh of April was arked by the appearance of the sun at idnight above the horizon; and the glare f its rays now burned the frost-bitten heeks and noses.

The marches were weary, seemed very ong, and were long, as compared with the sual experience in polar exploration, yet ine days carried the trio only 100 miles, for ney had to wind around and over high, ir-egular fields of very old ice. The average aily rate of travel northward was slightly ess than 15 miles—not excessive for Eski-os.

Beyond the 86th parallel the ice became moother and the going faster; and between he 87th and 88th parallels the ice was level ke that of a glacier, with no hummocks or eep crevasses, and every appearance of eing land ice; yet nothing like land was isible.

On April 14 the position was latitude 88 egrees 21 minutes, and longitude 95 de-rees 52 minutes, less than 100 miles from he goal. There was a continual drift of he ice south eastward, the movement ometimes, as just here, more active than t others, but the cold was so intense, keep-ng about 40 degrees below zero, Fahren-eit, that the water froze firmly over cracks lmost as soon as they opened, and little delay occurred.

By the time half the coveted distance had een passed, one by one the 26 hard-pulling ogs began to die, and yield their bodies to e food for the remainder, but the rest rept on through the horrible cold and si-ence and gloom.

Now the pace and the hardships began o tell severely on the iron frames of these dauntless men. It was no longer safe to se the little energy remaining in the even-ng to erect a shelter of snow-blocks, and he silk tent was used instead. A meal of rozen meat washed down with hot tea was the limit of exertion able to be endured. The ability to keep tea hot for some time n heat-conserving bottles and sip it now and then was a mainstay to life.

But day after day the weather was favorable, so that observations were never omitted; and the good ice permitted a rate of advance unprecedented in the annals of polar travel. Hence it was only the 21st of April when the instruments showed, what instruments had never indi-cated before,—89 degrees 59 minutes 46 sec-

DANISH RESIDENTS AT UPERNAVIK

onds. It was only 14 seconds—a few steps more—and the deed was done!

Frederick A. Cook stood on that apex of the earth where there is no latitude and no longitude and every direction is south.

One may imagine what emotion must have surged up in the heart of the heroic explorer as with joyful speed he fastened upright in the ice, at the axis of the globe, the stars and stripes, and watched his country's ensign flutter in the polar breeze. This he photographed, and then took it down to bring home with him, placing another smaller flag, and written memoranda of his achievement, in a metal cylinder which he fixed firmly in the ice. Even the Eskimo were moved, not alone in sympathy with their employer's joyous excitement, for Dr. Cook assures us they comprehended the reason for his satisfaction, and their own.

But when one is on a boundless plain of ice, in a temperature of—38 degrees Fahrenheit, hundreds of miles from all that can sustain life, little time and strength can be spared for celebrating. "Though overjoyed with the success of the conquest," writes Dr. Cook, in his telegram to the New York "Herald," which had the proud distinction of first publishing to the world the greatest news of the century—

"Though overjoyed with the success of the conquest, our spirits began to descend on the following day. After all the observations had been taken with a careful study of the local conditions a sense of intense

JOHN R. BRADLEY AND ESKIMO ON HUNTING TRIP

loneliness came with the further scrutiny of the horizon.

"What a cheerless spot to have aroused the ambition of man for so many ages!

"An endless field of purple snows. No life. No land. No spot to relieve the monotony of frost. We were the only pulsating creatures in a dead world of ice."

Two days were spent at the Pole in order to take a double set of observations to ensure accuracy, for the luck of bright skies, which had enabled him for ten days previously to take daily sextant observations of the sun, continued. Nor did this good fortune cease for several days afterward. Then the little party started backward on its race for life.

As the ice they travelled over was thought to be drifting east, a more westerly course was laid, in order to bring them back to the head of Heiburg Island where provisions had been câched. At first weather and road were favorable and progress rapid, but after passing the 87th parallel conditions became worse, and steel gray skies brooded gloomily over a waste of cold and starvation. Strong winds prevailed and impeded by rough ice time was wasted and food ran low. Not until May 24 did a clear sky again offer an opportunity for observation of the sun, and then they found themselves near the junction of the 97th meridian and the 84th parallel of latidude.

Food was now almost gone, mists and open water, moving ice and pressure-ridges blocked travel, and desparate efforts must be made to reach the land at Nansen Sound if life was to be kept.

Through twenty days of fog the frightful fight against famine and frost and accident went on, and then the clearing of the skies showed the wanderers that they were far down in Crown Prince Gustav Sea, and were separated by impassable water from Heiberg Island.

Here death would surely have claimed them and life and glory gone out together had not bears appeared, whose death instead saved these heroes and their message to the world, for no depots could be found. Once after being without food for three days a walrus was discovered in a little space of open water, and Dr. Cook, creeping forward on his stomach, managed to shoot it. On the 20th of June, however, they made a landing on Ringnesland, and there shot a bear and a seal, whose flesh restored the waning strength and that of the dogs.

"And now," Dr. Cook relates, "our goal was the whalers at Lancaster Sound. We followed the drift ice to the south eight miles a day, but were stopped by pack ice in Wellington Channel, which was impassable either by boat or sledge. Here was lots of game, but we did not dare shoot it. We had only taken a hundred bullets to the Pole, and now only fifteen were left.

"We went into Jones Sound after walrus and bears and found open calm water. We met polar wolves, with which some of our dogs made friends and ran away.

"Now we spent day and night in an open boat ten miles from shore. This lasted for two months, while storms often raged over our heads. At last we got ashore again, but we had no fuel, and were obliged to eat uncooked food. Next day we found fuel and what a feast we had! But we suffered much hunger during this period. One night a bear came and stole our food. We had many fights with musk oxen, which attacked us. Our best weapon against them was the lasso."

The boat alluded to was the light collapsible canvas boat taken with him throughout the journey.

At last, however, Jones Sound was abandoned, and a journey began up the coast of Ellesmere Land, living wholly on game obtained by bows, arrows and lances formed from their broken sledges, and by traps and lassos. Even at Cape York, almost "home," they nearly starved to death. At last they arrived opposite Etah, when a quick run across landed them among friends there

One can well believe the doctor's assertion that that was a greater day to him than was Discovery Day, April 21.

No ship lay at Etah, nor was any expected. Dr. Cook therefor travelled southward until he came to the northernmost of the Danish settlements, Upernavik, which he reached in May, 1909. Here he was obliged to wait for some vessel, and the first to arrive was the government supply steamer *Hans Egede*, upon which he was given passage. At Lerwick, a port in the Shetland Islands, he came to a telegraph station. A despatch to his wife contained the simple announcement "Successful and well," but the Danish official on the steamer sent to his government the brief statement that Dr. Cook was aboard, and that he had reached the North Pole.

The Danish government sent a torpedo boat to meet the steamer, which arrived at Copenhagen on the morning of September 4. It was boarded in the harbor by the United States Minister to Denmark, who welcomed and congratulated the explorer on behalf of his countrymen. Then the Crown Prince of Denmark followed with the welcome of his country; and upon going ashore an excited populace almost mobbed the hero of the hour with their eager joy to show him honor, while the King and learned societies showered attention and compliments upon him, and newspaper correspondents from all over the world sought a word or two from his lips to enlarge his wonderful story.

These honors were paid him by the government and people of Denmark—the home of Arctic pioneers—only after it was known that learned and experienced scientists and travellers of Copenhagen had declared their faith in the startling claims made.

It was fully anticipated by Dr. Cook, that his assertion that he had been to the actual axis of the earth would be doubted by many men, who would demand scientific proofs. This was the more to be expected as he was not personally known to many outside of North America.

Hence, appreciating the gravity of the matter, and the propriety of these questions, he gave the earliest and freest opportunity to newspaper correspondents, who had assembled from all over western Europe to question him, and he answered with the utmost frankness and good-nature; and it was agreed by all that he impressed his interlocutors as a modest, frank and able man. "The personal appearance of the American explorer," said the correspondent of the Associated Press, "has made a distinctly favorable impression throughout the Danish capital. Those who got a good view of his frank but fearless face are a unit in declaring that he is not the type of man to distort facts or engage in romancing.

DR. COOK AS A GREENLAND HUNTER

"This view is especially held by the scientists and others who went aboard the *Hans Egede* and examined the records and data secured by the explorer. They were convinced that the proofs are adequate."

There was no doubt or coolness in the tremendous enthusiasm animating those who were privileged to attend the banquet given to Dr. Cook by the municipality and Geographical Society of Copenhagen on the evening of his arrival, September 4, of which the following account was telegraphed to the United States by the Associated Press:

"The banquet this evening was held in the magnificent Municipal Building. Four hundred persons, many of them ladies, attended, while thousands congregated in the streets in a drenching rainstorm to catch sight of the explorer when he entered.

There was a preliminary reception in the lofty and spacious entrance hall. The spectacle, with so many of the men wearing orders, must have impressed the explorer by contrast with his recent experiences. The company marched upstairs to the music of the 'Star-Spangled Banner.' After all had been seated the Minister of Commerce, Johann Hansen, escorted Dr. Cook to the chair of honor amid a demonstration which

ONE OF THE ESKIMO WHO ACCOMPANIED COOK

caused him to color deeply. Minister Egan sat at Dr. Cook's right, with the Mayor of Copenhagen and Miss Egan beyond. Mrs. Gamel, a wealthy Copenhagen woman, who has contributed extensively to Arctic exploration, and has been closely identified with it, was at the Chairman's left. The menu was an example of enterprise, being decorated with a little photograph of the crown Prince greeting Dr. Cook and a map of the Arctic circle, giving Dr. Cook's route and a fac-simile of his autograph, with the date, which was a reproduction of a souvenir he gave Miss Egan.

The speeches teemed with compliments to Dr. Cook. The Mayor of Copenhagen said that the name was once more enrolled among the great explorers. Minister Egan briefly proposed a toast to the King of Denmark, and the Corporation President, in proposing a toast to the President of the United States, spoke of the pride that must be felt by the Nation which could boast that it was her son who first planted the flag where no human being had ever before set foot.

The Minister of Commerce, in proposing the health of Dr. Cook, paid a warm tribute to 'his noble deed.' He thanked the explorer for spending a little time in Denmark, and said that the privations of his journey were appreciated most by the men of Denmark, there to-night, whose names are written with honor on the ice rocks of Denmark's northern colony.

When the nation was first thrilled by the news of Cook's exploit, he said, he must confess, there was some skepticism, but afterward the news was confirmed, and he hoped that Dr. Cook would try for the south pole with the same success.

When the Minister raised his glass to 'our noble guest' there were nine hurrahs.

Commodore Hovgaard, commander of the royal yacht, spoke from the standpoint of an expert explorer, and commended Dr. Cook's methods.

Dr. Cook replied in a few words, saying: 'I thank you very much for the warm and eloquent words,' said the explorer, 'but I am unable to express myself properly. It was a rather hard day for me, but I never enjoyed a day better. The Danes have taken no active part in polar explorations but they have been of much importance as silent partners in almost all Arctic expeditions in recent years. The most important factors in my expedition were the Eskimo and dog, and I cannot be too thankful to the Danes for their care of the Eskimo, and now they also have instituted a mission at Cape York. Had I not met with the right Eskimos and the right dogs and the right provisions I could never have reached the Pole. I owe much to the Danish nation for my success.'

A telegram was read conveying the congratulations of the King of Sweden for 'a brilliant deed, of which the American people may rightly be proud.' Toasts to Mrs. Cook and to the Eskimos of the party were drunk.

Two hundred students in uniform marched in when the company returned to the grand ball andgave Dr. Cook a rousing cheer. They insisted upon a speech and sang songs. A noteworthy feature of the banquet, after Dr. Cook's acceptance in the morning, was that the applications for seats reached the thousands."

During his stay in Copenhagen, Dr. Cook was the guest of the Danish government, and he was decorated by the King with the Order of Merit.

The explorer was surprised and overwhelmed at his reception. He expected to come into Copenhagen quietly, but instead he was almost mobbed. In particular there was a great gathering of newspaper correspondents, artists, bioscope operators, publishers and agents. Some photographers even tried to invade the American Legation forcibly during the luncheon hour.

Hundreds of telegrams from publishers, lecture managers, and even theatrical man-

agers were awaiting him; and a host of invitations from people of distinction all over Europe, including the Kings of Sweden and of Italy.

A very substantial answer to some doubting queries as to whether Dr. Cook was provided with sufficient equipment to enable him to undertake, much less carry to success, an expedition in search of the North Pole, has been made by J. R. Bradley. He was able to do so authoritatively because it was he who provided that equipment; and in an interview published in *The New York Herald*, he gives a great many most interesting details. After describing his ship, and the sport obtained, Mr. Bradley said:

"My expedition had the latest devices for minimizing weight and at the same time increasing efficiency. For instance, I knew of an expedition several years ago which carried five or six brass stoves, weighing from 16 to 18 pounds each, to be used with kerosene oil for making tea. Our stoves were made of aluminum, their weight was three pounds each and they did precisely the same work. We got rid of 12 or 15 pounds on each stove, and without impairing our efficiency got rid of as much weight as a dog can pull, and had so much more allowance for food.

"I merely give this as an example of how the whole expedition was planned. Not an ounce in weight was wasted. An enterprise like this has to go on its stomach, and we had plenty of food packed in tin cases for transportation.

"We did not take Captain Bartlett in our confidence in the matter of our destination. He was curious and interested at times.

" 'Got enough pemmican here to feed a tribe of Eskimos,' remarked he one day.

" 'Oh, yes,' I answered. 'Might need it in case we are shipwrecked.'

" 'Quite some hickory wood aboard,' he remarked later.

" 'Quite so,' I answered. 'We may need it to build houses with when we get crushed in the ice.'

" 'Well,' he answered after a moment's thought, 'If I didn't know you were going on a fishing trip I would say you were going to find the Pole.' "

"Well, we arrived and everything seemed to be adapted for the attempt which Dr. Cook had in mind. We went thirty-five miles above Etah at first and Dr. Cook was sent ashore. He returned to the vessel and reported that he considered the conditions ideal for his purpose. Now let me show you how he reasoned and let us see whether or not this was the harum scarum dash of a man for the Pole in a straw hat?

ESKIMOS IN KAYAKS

"First, he made a census of the natives at the point where he landed and found that there were 240 of them, as compared with 250, according to the last record, which made a decrease of only ten in twenty years. The little colony was in pink of condition; the young men were strong and healthy. The Eskimo had had a good winter, for it was on August 28, 1907, that we landed. They had plenty to eat. Game was abundant and musk-oxen, walrus and other animals were abundant, and there were large numbers of fish. We found that there was little ice in Kennedy Channel, that the travelling over the land was good and that weather conditions were perfect.

"There could not have been a combination of circumstances better adapted to the purposes of Dr. Cook. He saw the chance and he took it for he had the nerve and the will to avail himself of his opportunities.

"On our way up we had encroached a good deal on the stock of five thousand gallons of gasolene with which we had started, and we were taking on ballast. As we were running a little light, I came on deck and said to Bartlett:—'Captain, get all the men ready and send all the natives aboard ashore. Prepare to unload as soon as possible, for we are to put Dr. Cook and his supplies ashore for the winter.'

DR. COOK AND HIS COMPANIONS ON AN ICE FLOE

" 'Is this a Polar expedition?" he asked.

" 'It is,' I answered.

" 'I knew it! I knew it!" he exclaimed. 'Never was there a ship fitted out as this one is which was not intended for the Pole. Expect me to stay all winter?"

" 'Not if we can help it,' said I. 'I wouldn't stay here myself. It is not necessary to stay here on account of Dr. Cook. We have a house on board for him.'

" 'Glad to hear you say that,' was the Captain's answer. 'I wouldn't stay here for anybody on earth.'

"We lost no time. The supplies were landed into dories, which were towed ashore by my motor boat, which was in reality a strong whaleboat twenty-seven feet long, with powerful engines. Dr. Cook managed the motor boat, for he is fond of running engines. We landed supplies at a rapid rate for a while, and then the ice began to drift in, and the captain strung the stuff up and down the coast for about five miles, and we had a lively time doing it.

"That will be all right?" said the Captain. "We are putting it on land ice and Dr. Cook can have the Eskimo gather it together." Meanwhile he had a lookout aloft to keep an eye on the ice, which was beginning to drift in from both directions. It took thirteen hours to land the supplies, including forty tons of coal, which shows that we had something of a Polar expedition to look after. The coal alone would have lasted him for ten years.

"Three years' supplies were left with Dr. Cook. That does not convey much of an idea perhaps, but if I had the inventory of it at hand, it would astonish those persons who speak of this expedition as a haphazard affair with nothing but the nerve of Dr. Cook to back it. There were tons pemmican and that kind of material, sug tea, coffee, canned goods, dried meats, qua tities of hickory for sled building, hardwa iron, steel, copper, cooking utensils of kinds, 150 feet of stove pipe, ten thousa boxes of matches, bales of biscuits, o hundred and twenty thousand cans of foc 150 gallons of alcohol, a barrel of gumdro for the sweet tooth of Mr. Eskimo, b rels of rice and flour, guns for tradi knives, beads and trinkets of all kinds a boxes of instruments for observation.

"I do not care to tell the cost of the e pedition, for that is a private matter, b since this question of supplies has be raised, I am telling something about it show that Dr. Cook had all the backing th he needed."

"How was Dr. Cook equipped with instr ments for making observations?" Mr. Bra ley was asked.

"I've seen the bills for all those thing replied Mr. Bradley imperturbably, "for paid them. They were packed away in box and I did not see them, so I cannot give inventory of just what Dr. Cook used. O could tell that he was at the Pole by taki the latitude alone.

"Dr. Cook is one of the ablest men wi all kinds of appliances I ever met. He h wonderful mechanical skill and for twen years he has been taking observations of t kind necessary to find out if a man we really at the North Pole. He is a train scientist and an explorer of experience. am no scientist—but a hunter of big gam

BRADLEY AND HIS MEN HAULING UP A YOUN WALRUS

With his experience in the Arctic and the Antarctic, I think that Dr. Cook knew very well what he was doing. I have seen him taking the observation for the day on board the yacht both alone and with either the commander or the mate. He had a sextant of aluminum which was an especially fine instrument, and was so much admired by Captain Bartlett that he said that if he were not strictly moral he would have stolen it long ago. The sextant was used in taking the observations of the Bradley all the way, and much of the time it was handled by Dr. Cook himself. He also had eight or ten of the best compasses that money could buy, an artificial horizon, as well as various meteorological instruments.

"Dr. Cook has been breaking precedents in this trip to the Pole. His methods violated all the old traditions. He went at a different season; he did not leave a ship frozen in the ice in the old, regular way. Also, he was taking a course which no explorer ever took before, in keeping away from the eastern drift of the ice from the Bering Sea. He profited by other men's mistakes. He made his dash to the Pole from the west, relying on the drift of the ice to carry him to the eastward. Now, that seems to have worked all right.

"In his outfit was a canvas boat; one which was easily collapsed and it occupied some of the space and weight which might have been given to less important things. Also it took up some space which might have been used for food, but it was worth it. Now, according to the books, when your Arctic explorer gets a great lane of water in the ice or a lead he sits down by the side of it for a while and keeps hoping until it closes up. Sometimes two or three days pass before his hope comes out. Dr. Cook went across these places in his canvas boat. The boat can be used for a tent at night and it is handy when not in commission for use as a tarpaulin cover.

"It was the idea of Dr. Cook that the people he left behind him on the land should cover his retreat. That left him about 350 miles to cover from March 17 to April 21, the date of his discovery, or thirty days according to my calculation. This is an average of only ten miles a day. The sleds which he had were exceptionally good, for he made them himself, and the dogs he obtained from the Eskimo were in the finest condition. They were fat, strong and full of life; in fact, according to all I can hear, better dogs were never seen. At that, of course, there were some which would weaken and have to be killed, and they were fed to their mates. With a little good luck here and there the dogs could easily beat ten miles a day, and some days go way beyond it. Mr. Peary in some of his books speaks of going as high as thirty and forty miles a day. One can go on dog sleds over reasonably good land ice at the rate of sixty miles a day.

IN A BLIZZARD

"Before Dr. Cook left me he said he would do another thing that no other explorer had done, and that was to come back from the farthest north on foot, whether he was successful or not, and to reach the Danish trading post of Upernavik, where he knew that in time a vessel must arrive. All this had been carefully mapped out two years ago.

"It has been asked why he did not communicate his discovery to the world sooner. The answer is easy. Because this is his

SEALER ON WHICH DR. COOK JOURNEYED

irst opportunity. Slowly he made his ack. He subsisted at times on what ıld find. It was only this spring that s able to get over into the neighbor- of Etah.

w he comes at last to Cape York. He that the Danish government sends a here to look after its colony and to alico and merchandise to trade for of the narwhal, eiderdown and blub- He knew that he could eventually meet that ship. So I suggested to him that he keep stowed away about his clothing in sealskin bags about £100 in English gold with which to pay his passage to Copenhagen, and from there to the United States. This he did as he said he would.

"He did it. And now for the last thought of Admiral Melville and others. How could he induce the natives to go with him to the North Pole and risk their lives? How does anybody induce the Eskimo to do anything? Here was as fully equipped an expedition as ever went to the frozen seas, excepting neither Peary, Dr. Nansen or the Duke of Abruzzi. It was quietly prepared, that was the only difference. It was peculiarly fitted out with things which were dear to the heart of the Eskimo, and Dr. Cook had enough of them to be liberal. So there is doubt, is there, in the good Admiral's mind about getting the natives for carriers? They will go anywhere for a gun. One will work a day for a biscuit. How about a box of matches occasionally? I had shipped 10,000 boxes of them. A biscuit, a cracker, a bit of tobacco—anything like that would bring an Eskimo to your feet.

"Mr. Peary used to promise every Eskimo who went with him a gun when the party got back. Those guns cost him about $2.50 each, I should say. The natives used to pick them to pieces and come to us to find out how they worked. There were twenty-five guns prepared just for the purpose of rewarding the faithful Eskimo. But beyond all this there is a personal element that must be considered, for the Eskimo are very fond of Dr. Cook. They remembered him when he came with Peary; they recalled his other expeditions. When they saw him coming ashore, they ran up and down the shore for joy, waving their hands and shouting their welcomes.

"He can speak their language, and they know that he is a square and honest man. He could get them to go with him anywhere, no matter what extremes of temperature they might have to endure. And then there is the question whether or not the Eskimo considers that he risks his life in wandering up to the North Pole. His ancestors have been doing that kind of thing for many generations, and, after all, our brother of the North does not care so much for a few degrees of cold.

STORY OF DR. COOK'S LIFE

The birthplace of Dr. Frederick Albert Cook, was the old Cook homestead in the village of Hortonville, a mile and a half from Callicoon Depot, New York, a station on the Erie Railroad among the mountains of Sullivan County. His ancestry was of that sturdy sort which produces men of strong character, and his childhood was passed amid the rude and healthful surroundings which develop physical strength as well as moral force.

His father was a physician and the son of a physician, who came alone from Hamburg, Germany, about 1849 to try his fortune in the New World. He then spelled his name Koch, and the family continued to do so for several years, when they changed it to Cook to correspond with the Americanized pronunciation which had proved too strong to be resisted.

What special reason the young man had in choosing the wild solitudes of Sullivan County for a home is not now recalled; but soon after his arrival in New York, he, with two or three other persons—no doubt fellow-immigrants—went to Newburgh by steamboat. This was before the building of the railroad, and travel to the west went over the old Colonial highway. Thirty miles through the woods brought him to the chosen spot, where he proceeded to erect a log house as residence and office, and entered upon the practise of his profession as a country doctor.

Three years later the young German married Magdalena Long, and then was built the substantial house in which the future explorer first saw the light. The house itself has disappeared, but on its site is now the residence of the eldest son, Theodore A. Cook. After him were born William L. Cook, now a resident of Brooklyn, a sister, now Mrs. Lilian Murphy of Toms River, N. J., and finally, on June 10, 1865, Frederick Albert, in whom the world is now so much interested.

The mother of the family was also a newcomer whose father had settled in the wilderness near Hortonville some ten years before her marriage, and it is needless to say that she was trained in the admirable virtues which characterized the rural population of the State at that period.

For several years happiness and comfort reigned in the houshold, and then the father died. He had been thrifty, and, as the country in which he had taken up his home developed, his practice of medicine enlarged to an extent which enabled him to provide plentifully for his family, and give each of his children such education as the neighborhood afforded; but this was no more than the rural District School, which remained in session no more than during the four winter months of each year, because it was needful, during the rest of the year, for all but the smallest children to help in the field-work or house-work of the frontier farmer.

This much schooling was given to Freddie, as he was familiarly called, as it had been to his older brothers; and he was less likely even than they to get more, for the

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THE EXPLORER AT AGE OF SIXTEEN

father's death, when Fred was hardly six years of age, made any help he could render on the little farm-homstead all the more necessary. Until he was fourteen, then, he lived the life of the ordinary country boy, exhibiting, however, a sturdy self-reliance which marked him among his less courageous fellows.

His brother, William, relates how, rather than ride on a store-bought sled when winter-coasting was at hand, Fred would go off into the woods back of his home with an ax and cut down young trees. When he had carted them into the open country, where the homestead was situated, he went patiently to the labor of fashioning them into a "bunker." When he had finished, he had a sled of such quality that there was none in the country to equal it.

As young Cook grew older and advanced in his studies he took most interest in geography, and was easily the best pupil in that specialty. He was eager to read everything relating to the subject, or to travel, that came in his way; and delighted in roaming the near-by mountains, imagining himself an explorer in foreign lands, and unconsciously training eyes and legs in topographical skill. As far from home as he could safely venture the boy would travel, either alone or with his brother William, and then find his way back without aid other than that afforded by the sun.

In the boy's fourteenth year the family moved to Port Jervis, N. Y. Money was scarce, but Fred entered the high school, and stayed there two years, during which, the young man applied himself with all his energy to study. He stood high in his classes and read his books at every opportunity. He was not a very strong youth, but made up in determination what he lacked in power. This kept him at his studies although it was necessary to work before and after school hours.

Then a new move seemed well to his mother, and the family came to New York, settling in the Williamsburg part of Brooklyn. Here it was necessary for Fred, as well as his brothers to go to work, and his first job was as a helper in the produce house of George W. Ihrig, in Fulton Market. His brother William had obtained previously a position in the same house. He sold vegetables, doing the same work as William, but not overlooking the ambition that was ever before his mind. One of the first things that young Cook did after his arrival in New York City was to see for himself a high school, where he i attend the night sessions. For almos years, or until he was eighteen years he continued in this way, selling veget by day and studying faithfully at night.

About this time the young man be interested in printing. He had saved money. This he invested in a small press, and in his Williamsburg home b the work of printing calling cards for n bors and friends.

So closely did the young man apply self to this work that very soon he f himself able to earn more money printer than he could hope for in F Market, so he decidedto give his time entirely to the new business, and di

DR. COOK AT THE SUMMIT OF MOUNT MCK

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THEODORE A. COOK, FATHER OF THE EXPLORER

almost a year before disposing of it finally, so that he might invest his saved earnings and the capital realized by the sale of his printing business.

As he looked about for such an investment young Cook saw an opportunity to purchase a small milk route. He thought there were possibilities of a young man succeeding in the business if he applied himself. This business had the recommendation that it required attention principally in the early morning, letting get free in time to attend lectures at the Columbia University Medical School, for he had determined to follow in the footsteps of hisf ather and grandfather and be a physician.

It is significant of the indomitable disposition of the man that no knowledge of financial inability daunted him when once he had resolved upon this career. He purchased the milk business in order to get the money necessary for his medical education—but at what a cost of work! At any rate he found that his little route must be enlarged before it would yield the necessary income, and he applied his energies to increase it.

In this he finally succeeded. Not much time, however, was free to him. It was necessary for Dr. Cook to begin work at one o'clock in the morning. He delivered his milk to his customers between that time and seven o'clock. Then he hurried to his Brooklyn home, and reported for study at Columbia at nine o'clock. He remained in school until four o'clock in the afternoon. Between that time and one o'clock in the morning he slept. Lack of sleep, William Cook remarked, was made up on Saturdays and Sundays, when there was no school. But there was work on those days as well as others. Whatever few spare moments the young man had be spent in studying.

Young Cook's incessant labor and great effort to build up his business were so successful that he found the work growing beyond his power to control. He invited William to share the business with him on a partnership basis, and it is to this brother's reminiscences that the biographer is largely indebted. With this accomplished, he continued his studies.

These hard circumstances made progress slow, and six years were required to finish the course; and in 1890, a year before graduation, he married Miss Libbie Forbes, who, however, died about the time when Columbia gave him his diploma.

Up to this time Dr. Cook's intellectual activity had been great, but no more in the line of exploration than in other scientific directions. About this time, however, Lieutenant Peary, was organizing his first expedition in search of the North Pole, and a competition was opened for choice of a surgeon. Influenced, no doubt, by his bereavement as well as by his natural tastes, Dr. Cook tried for the place, won it, and went to the Arctic region with Peary in the *Kite*, in 1891.

This gave him a valuable experience in the far North, for Peary and his company explored the northwestern coast of Greenland, reaching as high as 82 degrees, and doing a great deal of sledge-work. It was with an excellent reputation that he returned, and with a heart fired with eager desire for further adventures in the field of geographical science.

Upon his return he married Mrs. Marion F. H. Hunt, widow of a well-known and wealthy Philadelphia physician and surgeon. She had one child, Ruth, and they established a home in Brooklyn where Dr. Cook soon acquired a remunerative practice. Mrs. Cook was an enthusiastic student of polar exploration; and few were surprised when in 1893 Dr. Cook departed for the north, in the yacht *Leta*, and again in 1894.

The last venture was the *Miranda* expedition, which was ill-fated almost from the start. "The *Miranda,*" H. C. Walsh, one of the party, relates, "had many mishaps, colliding with an iceberg off the coast of Labrador, which necessitated a return to St. John's, Newfoundland, where the ship was repaired; and later she run on some hidden reefs off the the coast of Sukkertoppen, South Greenland. In this encounter the bottom was torn off the *Miranda,* but its ballast tank saved it from sinking.

"We arranged to steam back to Sukkertoppen, an Eskimo settlement with a Danish Governor, and from there Dr. Cook with a small party set out to look for assistance. He finally got in touch with a Gloucester fishing schooner, the *Rigel,* commanded by Captain Dixon. The big-hearted Captain gave up his fishing trip, the first that he had attempted off the coast of Greenland, and came to the rescue of the *Miranda* and her party of stranded explorers. The *Miranda* and the *Rigel* were connected by cable and, the schooner towing the steamer, started for home.

"Dr. Cook and the rest of us took up our quarters on the *Rigel,* the officers and crew of the *Miranda* alone remaining on that ship. On the second night out, however, a stormy one, the ballast tank of the *Miranda* began to give way, a signal of distress went up and dories manned by the *Rigel's* crew went and brought over the officers and crew of that ship. The cable connecting the two vessels was cut and the *Miranda* was abandoned to her fate upon the high seas."

After this misfortune, Dr. Cook stayed quietly at home practising the healing art; but his ambition was not satisfied; and in 1897 he joined the famous *Belgica* Antarctic Expedition as surgeon and anthropologist. or nearly two years she was absent in a quest which resulted in remarkable additions not only to geographical, but to every species of knowledge relating to the Antarctic region.

Though he returned only in March of '99, the summer of 1901 found him north again in the Peary auxiliary *Erie.* This was a mere excursion, however, and, as he felt, scarcely counted. Two years later, therefore, he departed for Alaska, intending to climb Mt. McKinley. He did try to do so, but met with failure. He believed, however, that his experience had taught him how the

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MRS. THEODORE A. COOK, MOTHER OF THE EXPLORER

ascent should be made, and in 1906 he returned to Alaska with several companions and renewed the attempt. Again he seemed unsuccessful, and after retreating from near the summit most of the party left him. After their departure he and two others attacked the summit from another direction and he announced that he had then reached the very top, and found the peak 20,360 feet in altitude, or the highest mountain in North America.

When one considers this training, which has been accompanied by incessant study it is not surprising that Dr. Cook has been the one to grasp the prize which has been so long unattainable.

Dr. Cook would have been more widely known had he not been so shy, modest and seemingly unconscious of heroism. No one is more unlikely to boast himself, or think of his deeds in any other light than as contributions to science.

He is the author of two valuable and interesting volumes. Those who wish to know of part of his work in detail should read his "Through the First Antarctic Night" and "To the Top of the Continent," records of his experiences as surgeon of the Belgian Antarctic expedition of 1897-9, and of his exploration and conquest of Mount McKinley, 1903-1906.

M. PEARY'S DASH FOR THE POLE

he time and method of the announce- of Dr. Cook's achievement were dra- what shall be said of the fairly the- l entrance of Peary upon the scene, his curt statement:

s and Stripes nailed to the North Pole!"

jubilant assertion left the world ıless. Here was a piling of Pelion upon Should the spot which had defied nd since the world began, yield its s twice in the same week? It was evable!

first word came from the wireless ıph station at Indian Harbor, Labrador. s caught by the wireless station at Ray, on the southern shore of the ; of Belle Isle, and repeated by over- elegraph to St. Johns, Newfoundland, ıpe Canso, Nova Scotia. It read:

ıave the pole, April 6. Expect arrive au Bay, September 7. Secure control for me there and arrange expedite nission big story. PEARY."

lowing the receipt of Commander s message to the New York Times ıl other messages were received in York from the explorer to the same

ı afterward the Associated Press re- l the following:

ırs and Stripes nailed to the pole. "PEARY."

Herbert L. Bridgman, Secretary of eary Arctic Club, he telegraphed as 's:

le reached. Roosevelt safe. "PEARY."

telegram to Mr. Bridgman was sent her. The cipher used was a private nd indicated clearly that the dispatch ındoubtedly from Commander Peary. nmander Peary also sent a message wife at South Harpswell, Me., where ad been spending the summer.

ıve made good at last," said the ex- to his wife. "I have the old pole. vell. Love. Will wire again from au."

message was signed simply "Bert," an abbreviation of Robert, Commander Peary's first name. Mrs. Peary sent a wife's characteristic reply, with love and a blessing and a request for him to "hurry home."

By a strange coincidence, Mrs. Frederick A. Cook, too, was in South Harpswell, Me., when she received the first news from her husband.

Two messages were received also from Donald B. McMillan, who accompanied Peary. Mr. McMillan was an instructor in

COMMANDER PEARY AND CAPT. BARTLETT ON THE "ROOSEVELT"

mathematics and physical training at the academy in Worcester, Mass., until the close of school, 1908, when he obtained a leave of absence of two years to go on the Peary expedition.

In addition to his message to Dr. D. L. Abercrombie, principal of the academy, Mr. McMillan sent the following to Mrs. W. C. Fogg, his sister, at Freeport, Me.:

"Arrived safe. Pole on board. Best year of my life. BEN."

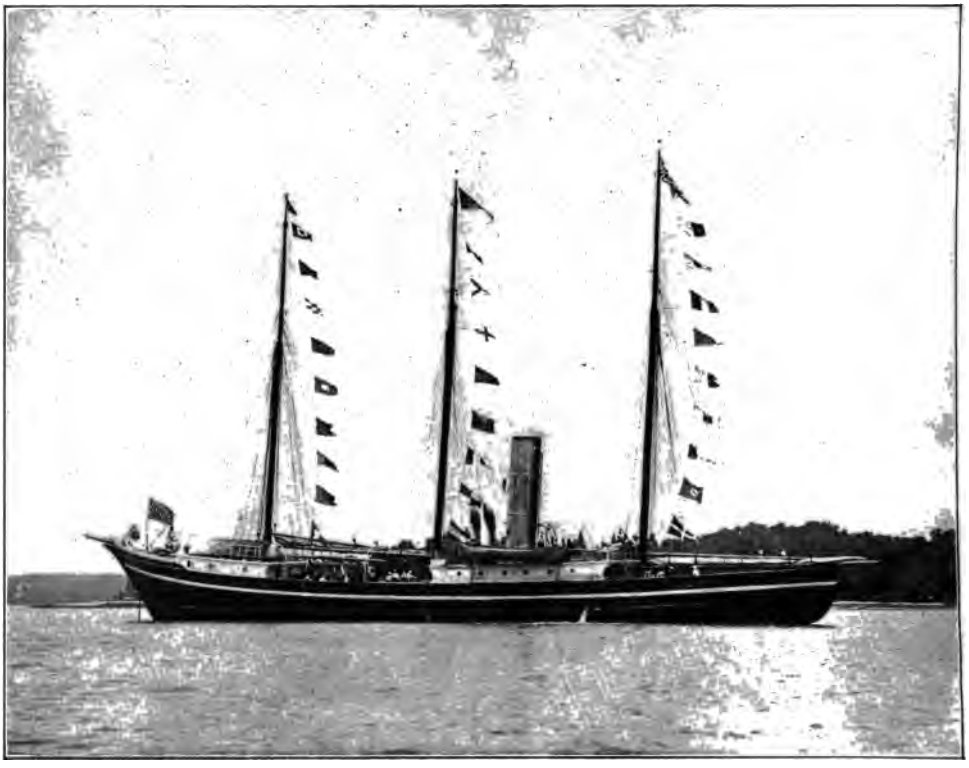
Instantly the news was scattered from St. Johns and from New York to the four quarters of the globe, and a shout of surprised congratulation went up from every place where civilized men are gathered together, for all the world has been interested in the plucky way in which for twenty-three years this explorer has worked at the problem. It reached Copenhagen while Dr. F. A. Cook was dining with the assembled correspondents, and he was immensely interested and said:

"That is good news. I hope Peary did get to the pole. His observations and reports on that region will confirm mine."

Asked if there was any probability of Peary's having found the tube containing his records, Dr. Cook replied:

"I hope so, but that is doubtful on account of the drift. Commander Peary would have reached the pole this year probably, while I was there last year. His route was several hundred miles east of mine. We are rivals, of course, but the pole is good enough for two.

"The fact of two men having reached the pole along different paths," continued



THE "ROOSEVELT" IN OYSTER BAY JUST BEFORE DEPARTURE FOR THE NORTH

ıe explorer, "should furnish large addi-ons to scientific knowledge. Probably ther parties will reach it in the next ten ears, since every explorer is helped by the xperience of his predecessors, just as verdrup's observations and reports were f immeasurable help to me."

When, on July 7, 1908, President Roose-elt bid Commander Peary God-speed, on he ship which was to carry him North, the oyager replied that he had never felt so onfident as he then did.

From time to time there came fragments f news which assured the world that the xpedition had met with no early mishap. message from Hawkes Harbor, dated uly 21 told of progress, and said:

"The weather has been very favorable, the ship has behaved well, and the crew and party appear to be of the right material. I have found abundant whale meat here, and, in company with the *Erik,* we start north to-day."

In another letter to the New York Times of the same date the ambitious explorer outlined the plans for the conquest of the North Pole.

A message received at the Arctic Club on September 25 told that the *Roosevelt* had left Etah on August 17 and had reported that the prospects of getting far north were good. The *Erik* was repaired at Turnavik Harbor and proceeded south.

On October 9, 1908, Henry Johnson, an

THE CREW OF THE "ROOSEVELT" JUST BEFORE DEPARTURE FOR THE NORTH

In back row are the firemen and sailing crew. In the second row, first is the cook, third **ate; fifth,** chief engineer; last, Captain Bartlett. On first row second is Surgeon J. W. **oodsell, third,** George Borup, youngest one of the explorers; and fourth, Donald B. **cMillan, assistant** to the Commander. **This is practically the entire crew of the vessel.**

COMMANDER PEARY BIDDING PRESIDENT ROOSEVELT GOOD-BYE

able seaman of the *Roosevelt,* arrived in New York from Greenland, bringing the first oral news of the expedition. He returned because of an injury to his knee. He brought a letter from Peary to the Arctic Club, telling of the progress the ship had made, with photographs and other data. Johnson stated that the *Roosevelt* was hit by a hurricane off the coast of Greenland on July 29. It opened the seams of the ship's bow to such an extent that several of the crew felt her to be practically unseaworthy for a rough voyage among icebergs. While she was being repaired at Etah, Johnson said, her leaky bow caused apprehension among some of the crew. When the *Erik* returned to St. Johns, however, her commander reported that she had left the *Roosevelt* in good shape.

On August 11 the schooner *Jeanie,* purchased and equipped for a voyage to Etah, Peary's base station, left St. Johns, N. F., with fifty tons of coal and a supply of provisions, under the command of Captain Samuel W. Bartlett. It was the *Jeanie's* intention to leave the coal at Etah, so that Peary could use it for the *Roosevelt* when he returned from his dash to the pole. It was also the intention of the promoters of the relief expedition to bring back Dr. Cook, who was then thought to be lost, if he could be found in the arctic wilds.

ORGANIZATION OF THE SUCCESSFUL EXPEDITION.

Made certain that success lay within his grasp by the nearness of his approach to the pole in 1906, Commander Peary resolved to make his next attack over substantially the same path.

Enormous difficulties stood in the way of getting another expedition under way, however. Previous efforts had been financed almost wholly by the late Morris K. Jesup, whose interest in polar explorations and faith in Peary made him willing at all times to furnish whatever money the Commander required.

When Mr. Jesup died, Peary had little hope of making another trip for the pole. His ship, the *Roosevelt,* was in bad shape owing to the terrific strain she had been subjected to in an ice jam near Cape Sheridan. The necessary money was not forthcoming. At any rate it seemed impossible to get any expedition under way in 1907, although Peary knew that rivals were abroad and no time could be safely wasted.

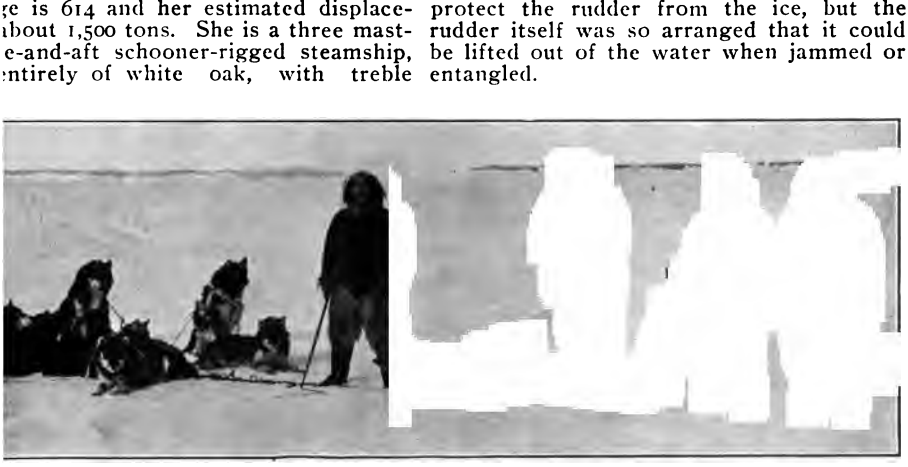
ESKIMOS IN SUMMER GARB ON BOARD THE "ROOSEVELT"

ander Peary had established at Etah
t of hospice and training school
ıe Eskimo Highlanders and their
and when he heard of the
ure of Bradley and Cook, under
uise of a sporting trip, he knew
night utilize these men and animals
ake the "dash" while he was held a
er in New York for lack of funds.
go in 1907 became out of the ques-
but by the next season tremendous
and persuasion had secured funds
h to make the old ship strong and
again, and fill her with necessary

No money was left for luxuries or
and it was in a very shabby looking
hat Peary steamed up East River,
rd bound. She was in need of paint,
eary figured that paint on a ship's
vouldn't count for much in the Arc-
But, in the matter of food, presents
e Eskimos, material for sledges and
arness, coal, guns, ammunition and
ic instruments the *Roosevelt* was fully
ed; her sides and ice-crushing bow
strengthened and her machinery made
od as new.

INTERIOR OF FORT MAGNESIA, CAPE SABINE, ELLESMERE LAND

Roosevelt was built in Maine by
eary Arctic Club, for the work of
from Peary's own suggestions. She
feet in length, with a beam of 35.5
a depth of 16.3 feet, and a mean
ıt, with stores, of 17 feet. Her gross
ge is 614 and her estimated displace-
ıbout 1,500 tons. She is a three mast-
e-and-aft schooner-rigged steamship,
entirely of white oak, with treble frames close together, double planked. Her walls are from 24 to 30 inches thick. The keel, 16 inches thick, is reinforced with false keels and keelson. Her heavy bow is backed by 12 feet of solid deadwood. Her stern, reinforced by iron, had a long overhang to protect the rudder from the ice, but the rudder itself was so arranged that it could be lifted out of the water when jammed or entangled.



DOG TEAM

When all had been prepared at Etah, the *Roosevelt* sailed away toward the north and disappeared into a fog, as reported by the officers of the *Erik* who returned with last words from Peary and his men. This was on Aug. 8, 1908.

The *Roosevelt* was steadily pushed north through the defiles of Kennedy and Robeson channels, where the moving ice opened here and there and let the vessel steal between the floes, until only three weeks later the Arctic Ocean was in sight. Entering it the steamer was turned to the left and was pushed along the coast as rapidly and as far as could be, for Commander Peary meant if possible to get to Cape Columbia, a headland well to the west on the north coast of Grant Land. As in the previous expedition, however, the ice, pressing against the promontory of Cape Sheridan, shut off any progress beyond there; and on the first of September the expedition laid the ship in a snug harbor under the protection of Cape Sheridan, and went into winter quarters.

The experiences of the winter were productive of many interesting and valuable experiences for the scientific staff, and no little sport; but this period of waiting does not concern the present narrative.

In February the first gray light of the approaching Arctic dawn begins to dispel the darkness that for weeks previously has aided the cold to enchain the world. To start on the sledge-journey toward the Pole (for which all that had gone before was but the preparation) before the middle of that month would be impracticable; to delay much later would be risky on account of the spring dissolution of the ice-field, slowly released from the grasp of the midwinter cold which alone is able to keep it from breaking to pieces under the dragging and pushing of the winds and currents.

On the 15th of February 1909, then, a start was made. A sledging expedition was planned to go overland westward to Cape Columbia, the point of departure for the Pole. This overland trip consumed a fortnight, and Cape Columbia was reached on March 1. This was to be the base camp, but not a moment was lost by Peary in going on his way, leaving to his first assistant, Prof. Ross Marvin, the carrying out of the supporting arrangements by which his advance would be assisted and his return secured.

From this base-camp, at the most advanced point of the coast, the distance to the Pole in a straight line is 420 miles. Peary was starting at the earliest moment—earlier than on any previous attempt, in order to avoid as far as possible open water; as he had gone so far west as Cape Columbia in order to make allowance for the eastward drift of the polar ice.

Now he was off. The going was as good as could be expected near the coast, but open leads delayed him so much during the first ten days that it was not until the 11th of March that he had reached the 84th parallel, scarcely one degree gained. After that, as the central plateau of ice was gained delays grew less and less. The 85th parallel was crossed on March 18, and the 86th five days later. This date (March 23) was notable, for now Peary crossed his own track of "highest north" made in 1906; distanced the best Norwegian record, and overcame a troublesome open lead which barred his way. This point was the limit of the last supporting party; and it was in returning from his duty, toward the base, that Professor Marvin lost his life on April 10 by drowning.

On March 24, the explorer—now hastening forward with his chosen few into the unknown north—beat the Italian record, and with only one piece of open water in his way, attained the 87th parallel on March 27th and the next day beat his own record of "farthest north."

Now the goal was near and confidence increased with every mile of advance, for the sledging was better and swifter than Peary had ever experienced before. Occasional leads of open water halted the party briefly, but the massive and chaotic hummocks and pressure-ridges which have so often in the past fatally obstructed the way were not here, or were quickly passable. The 88th parallel was crossed on April 2d and already the highest record was a thing of the past. Only two days later the 89th parallel was left behind, and in two days more (April 6)—this was a dash indeed!—the center of the northern hemisphere was reached, and Commander Peary stood at the Pole!

The goal of eight intelligent, strenuous and costly expeditions had been attained, and the reward was the instant and sympathetic admiration of the world.

The remarkable feature of this final and glorious consummation of the long struggle in Polar exploration is the comparative ease and speed with which it has been accomplished. Conditions were unusually

THE "ROOSEVELT" IN THE POLAR ICE

favorable, preparations were complete, and extraordinary speed was made. He spent only 50 days in going from the ship to the Pole, 37 of these being consumed in the ice journey after leaving Cape Columbia. This represents an average of nearly 12 miles a day, which has hitherto been regarded by explorers as an average which it was idle to hope for in polar sledge-work.

Even this speed, however, was exceeded on the return trip, which began on April 7, after a single night at the Pole, by the wonderful swiftness of the return for in sixteen days, ending April 23, Cape Columbia was again reached. This is an average of about 26 miles a day—something unheard of in such travel.

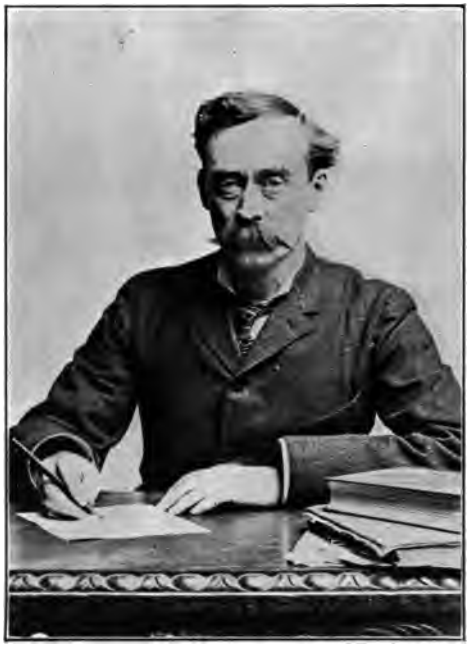
Before the first of May all except poor Marvin were gathered rejoicing on the *Roosevelt*, and eager to depart southward and spread the great news. It was midsummer, however, before the ice released its clutches and the *Roosevelt* could turn its prow toward civilization. Leaving Cape Sheridan on July 18th, good fortune and pleasant weather attended her as she wound through the uncertain labyrinth of cracks and spaces among the ice. Etah was reached a month later, the coal supplied by the relief ship *Jeanie* obtained, and Mr. Harry Whitney, who had remained in charge of the supply station there, was picked up and carried to some distance, only to leave the ship soon again in order to hunt bears on the Greenland coast.

The run southward through Baffin's Bay was delayed by bad weather, but on September 7, Indian Harbor, Labrador, was reached, and the Wireless Telegraph filled the air with Peary's glory.

STORY OF COM. PEARY'S LIFE

Robert Edwin Peary, who has "made good" and "nailed the Stars and Stripes" to the North Pole, is a Pennsylvanian, born in Cresson, Pa., May 6, 1856. When still a boy, he moved to Portland, Maine. After studying in private schools and preparation at an academy in North Bridgton, Maine, Peary entered Bowdoin College, graduating in 1877. He then became a draughtsman in the U. S. Coast and Geodetic Survey, passed a stiff examination in 1881, and entered the United States Navy as a civil engineer, ranking as Lieutenant. Three years later (1884), he commenced several years' service in the field as assistant government engineer, in the surveys for the proposed route of the Nicaragua Canal, inventing rolling lock-gates for use on that canal. At the end of this period, he was engineer-in-chief of the Nicaraguan Survey.

When thirty years old (1886), his attention was turned from tropical to boreal research; getting a short leave of absence, he went north, and then, in company with a Dane, Maigaard, he made a reconnaissance, to the considerable gain of science, of the inland ice-cap of Greenland, east of Disco Bay, partly crossing the island.



COMMANDER ROBERT E. PEARY

Matthew Henson, a colored man, who had served with Peary in Nicaragua, followed him to the Arctic, on this, as on other of his many subsequent trips.

On his return, Peary immediately began to spend his spare time in preparing for another expedition to the north. In the meantime (1888), he married Miss Josephine Diebitsch, whom, when he was a young man, he had met in Maine.

His experience as an engineer, assisted Peary in preparing for his next expedition of 1891-92.

The whole trip was thoroughly thought out, and supplies were left at convenient points. The expedition was financed by the Academy of Natural Sciences, of Philadelphia, and was thoroughly organized when it departed, under Peary's leadership, in the *Kite*, (June, 1891). He established headquarters on McCormick Bay, on the western coast of Greenland. From there he made sledge excursions along Whale Sound, Inglefield Gulf and Humboldt Glacier, proving the convergence of the eastern and western coasts of Northern Greenland.

He courageously persisted in his work though his leg was broken while crossing Melville Bay, and returned in September, 1892, with a brilliant record of results, particularly in the way of perfecting the equipment for future Arctic work. One of the most notable features of the expedition was his journey, with dog sledges, of 1,300 miles over the inland ice at an altitude of from 5,000 to 8,000 feet, from McCormick Bay to the northeastern extremity of Greenland where a great indentation, discovered on July 4, was called Independence Bay, and back again. This expedition determined the fact that the great inland ice cap terminates south of latitude 82, and that Greenland is an island with detached land masses north of it free of ice.

These he called Heilprin Land and Melville Land. Dr. F. A. Cook was with Peary

as surgeon on this expedition, and also Mrs. Peary, who made various sledging expeditions with him from the winter station, but returned in the Spring, leaving her husband free for his great sledging journey across the ice cap.

In 1893, Peary again went north to Greenland, accompanied by Mrs. Peary; and, 13 degrees from the Pole, in winter quarters, Mrs. Peary gave birth, at a point further north than any other white child was ever born, to their oldest daughter, familiarly called, therefore, the "Snow-baby," but christened Marie Ahmigito.

Peary devoted himself to a thorough study of that Eskimo tribe known as Arctic Highlanders, and re-discovered the "iron mountain" first reported by Ross, in 1818, which proved to be three meteorites, one of them weighing ninety tons and the largest known to exist.

Another very long, and exhausting expedition, commenced in 1898, and enduring for four years, proved to be one of his most important trips. It was under the auspices of the Peary Arctic Club, and was financed by the late Morris K. Jesup. His ship, the *Windward*, reached Princess Marie Bay, an indention of Ellesmere Land, in August, 1898, where she was stopped by the ice.

Thence he made an overland journey in December, by sledge, to Fort Conger, further north on Ellesmere Land, planning to make it his base. His feet were badly frozen, and, though eight toes were amputated on March 13, 1899, when he returned to the *Windward*, he again took to active work within a very few weeks. He crossed Ellesmere Land, passed over an ice elevation of seven thousand feet and discovered Cannon Bay.

The *Windward* returned to the United States. Peary passed the winter of 1899 to 1900 at Etah, that being the first time he had established the base which was utilized in his last trip. The rest of the year Peary spent in exploration, and on August 2 the *Windward* made port at Etah.

The marches of that year were frightfully exhausting, the sledging parties struggled over high parallel ridges of rubble ice, and were engulfed in the snow-filled hollows between. They were storm-bound by terrific icy gales, and, to cross open leads of water, ventured on floating ice, only escaping when contact of floe-fragments, and their cementing by quick-forming ice, bridged the gaps.

MRS. ROBERT E. PEARY ON BOARD THE "ROOSEVELT"

The ice-pack disintegrating, the trip had to be abandoned. Returning to the south, Peary fixed his winter quarters at Fort Conger, and attempted the Cape Hecla route in 1901. His northern advance, however, was abandoned at Lincoln Bay in April, of that year.

Undismayed and transferring his base to Fayer Harbor, Peary again started northward in February, 1902. He reached Fort Conger by twelve marches that aroused wonder and admiration. He used nine sledges and was all but stormbound for many days at Lincoln Bay.

He encountered most difficult ice conditions in rounding Cape Henry, where two men nearly lost their lives by the slipping of a sledge over the precipice of the ice pack, these sleds having to pass along an ice shelf less than a yard in width, with a precipice yawning at the side. Despite obstacles and adverse ice conditions, Peary travelled about four hundred miles in a month, the temperature ranging from 38 to 57 degrees below zero.

When he left Cape Hecla, Grant Land,

MISS PEARY

with sledges and dogs and Eskimos on April 6, 1902, the disintegrating ice pack was constantly shifting, while crevices and lanes of open water made progress arduous in the extreme. Strong gales broke up the ice pack constantly, rendering the situation very dangerous. So desperate was it at one time out beyond Crozier Island that Peary wrote in his journal on April 21:

"The game is up. My dream of sixteen years is ended. It cleared during the night and we got under way this morning. Deep snow. Two small floes, then another period of old rubbles and deep snow—this extending north, south, and west, as far as we could see. I have made the best fight I know. I cannot accomplish the impossible."

That night the moving ice made
of a tremendous surf tumbling o
beach. The latitude was 84 degree
utes N., and the magnetic variati
grees west. At that time the furth
that any American explorer had g
the greatest hardship they beat ba
ship, and sailed back to Cape Bi
riving there on September 17, 19
The next expedition started fron
Cape Breton, in July, 1905. Befor
Peary said, that to discover the p
to "open up 3,000,000 square mil
solutely unknown regions. The ra
sentimental and moral, and if w
will be victorious in the greates
ever engaged in by nations wher
was no jealousy."

The *Roosevelt* after leaving
August 16, 1905, gradually forced
with much crushing and grinding
her reinforced timbers, throug
sound, Kane's Basin, Kennedy a
son channels northeastwardly, a
northern coast of Grinnell Land
Sheridan in Grant Land, thus util
Smith Sound or "American" rou
Peary made his winter quarters.
which commands a wider range of
tral polar sea and its surroundir
than any other possible base in t
regions. Cape Sheridan is p
equidistant from Crocker Land,
the remaining unknown portion
northeast coast of Greenland." On
1 the party killed one hundred mus
just in time, for from the summit
Cape on October 12 they looked
upon the sun for that season.

Late in February Peary and his
out. Three marches brought them
Hecla. Just beyond Point Moss t
to leave the land and strike acros
fields. At 84 degrees 36 minutes
pedition ran into an open lane
two miles wide and was held up
before able to proceed. On this
Peary put the blame for his fail
soon as young ice formed the part
out into the thinly covered lane.
the lightly weighted sledges were
preparing to return and reload
wind sprang up and opened the l
As the bulk of the provisions wer
south side, the expedition was forc
ceed without them. It was heart
but a longer delay meant certai
They camped one night 85 degree

utes, north latitude, in a dense fog. Then came an icy gale, and later snow, which lasted for six days, and observations taken at about that time showed that supporting parties which Peary had sent out were nowhere in sight.

"It was evident," says Peary, "that I could not count in the slightest degree on them; that whatever could be done must be done by a dash, and at Camp Storm, abandoning all things not essential, we bent ourselves to set a record pace."

Peary, carrying the compass, set the pace for the toiling sledge dogs, and their trotting drivers, and made rapid marches, the first ten hours long, covering thirty or forty miles.

Provisions now ran low and the allowances were shortened. Weaker dogs were fed to their stronger brothers and by exerting themselves to the utmost the explorers were able to make fair headway. The lanes of water were increasing constantly, however, and the hummocks grew larger and larger. His observations then gave 87 degrees 6 minutes, as his location. That was Farthest North at that time.

Peary felt that with his pack of dogs decimated and his sledges all but empty, he could not in common prudence push beyond. Cutting his flags from the summit of the highest pinnacle, he left in a bottle a short record of the expedition and a piece of the flag that he had carried around the northern end of Greenland six years before. Then began the march back to Camp Storm.

The return march, was, if anything, more frightful than the out-going one. They were headed for Cape Morris K. Jesup through heavy "gales of wind and snow in which none but an Eskimo could keep the trail." The chance discovery of several musk oxen alone saved the party from starvation. Once, too, the explorer and his Eskimos were nearly drowned in crossing a lane covered with thin ice. It was at the 84th parallel that Peary came upon an unusually wide lane, and while camped waiting for a chance to cross, the ice upon which the party was gathered separated from the main floe and drifted away for five days. A cold snap cemented it to the main body then, and on ice which threatened each moment to break beneath them the explorers, their dogs and provisions spread out in a long line and made the perilous crossing.

MASTER ROBERT PEARY

The men with snowshoes on their feet did not dare to slip ahead, but were content to scuff along while the block ice bent beneath them like rubber. It was two miles across this ticklish bender and in silence the party crossed. Had they paused for an instant the ice would have given way beneath them and rescue would have been impossible. This experience, and that in the Storm Camp, on the way north, taught Peary that polar ice on the southern side of a lane moves slower than that nearer the pole and also travels east. Both he and Cook put this discovery to good use later.

In November he returned to civilization, and immediately commenced preparations for what has proved to be his successful effort to find the pole.

THE CONQUEST OF THE NORTH

Arctic exploration began with the voyage of **Willoughby and Chancellor.** They discovered a passage through Arctic waters, around the north of Scandinavia, opening a new trade route, in 1553, which resulted in the establishment of the port of Archangel; but Willoughby died of scurvy, with his sixty-two men.

Finding the "Northeast passage" to Asia apparently impenetrable, subsequent explorers, certain that some waterway around the northern coasts of the continents must be available, tried to find a "Northwest passage," and one of the first was **Martin Frobisher,** who in 1576, discovered Frobisher Bay, and gave Arctic exploration a new impetus by collecting certain black earths, which it was rumored contained gold. He made two later voyages, and was followed in 1585 by **John Davis,** another Englishman, who discovered the straits bearing his name, and went as far north as 66 degrees, 40 minutes, anchoring in Exeter Sound. He also made two other voyages skirting the western coast of Greenland, which he called "Desolation" Land, coming, on his third voyage, "to the latitude of 75 degrees, in a great sea, free from ice, coasting the western shore of Desolation. * * *"

William Baffin, in 1616, sailing in the *"Discovery"* from England, arrived in May at "Davis' farthest point, Sanderson's Hope, in 72 degrees, 41 minutes N., . . . and reached, 1st July, an open sea, the 'North Water' of the whalers of to-day. Passing Capes York, Atholl and Parry, he yet pushed northward, and on the 5th of July attained to his farthest point within sight of Cape Alexander. His latitude, about 77 degrees, 45 minutes N., remained unequaled in that sea for two hundred and thirty-six years."

In the meantime, **William Barents,** sent out by the Dutch, had resumed the search for the "Northeast passage," making three voyages, finding it impossible, even on the last voyage, 1596-97, in which Spitzbergen was discovered, to penetrate to the eastward. He was the first to winter successfully in the far north; and, as in the case of most Arctic explorers, his name has been perpetuated, in the appellation of the great Barents Sea, where valuable whale and sea fisheries were revealed to the Dutch.

"Almost every year about this time, says the writer, in his *Book of the Ocean*, saw English, Dutch, and Danish ships going north, each adding some new fact to geography and the knowledge of polar waters and ice. One of them, in 1607, was commanded by Henry Hudson, who searched the North Atlantic, found Jan Mayen, and pointed the way to the Spitzbergen whale fisheries; yet he had hardly more than a sailboat, and a crew of only eleven men.

"The following year this intrepid man tried to go to China north of Asia, but failed as Barens had done, and returned 'void of hope of a northeast passage.' Nevertheless, he tried it again a year later in the service of Amsterdam merchants, but his men were obsterperous, and yielding to his own inclination as well as to theirs, he turned west to find that "Northwest Passage' in which everybody then believed because they hoped, and because of the difficulty of getting so great a fact as the real North American continent proved to be, accepted by the popular imagination, which was used to small things in geography. Very willingly, then, Hudson's little ship, the *Half Moon*, was turned toward the southwest; and it found something better than it sought, for the Hudson River and the site of the future metropolis of the New World were added to the map.

"Hudson's success in this voyage led to his immediate engagement by a company of English merchants and speculators, who were willing to risk additional money in searching for a northwest passage if he would lead.

"In 1610, therefore, Hudson took command of a new ship, the *Discoverie*, and sailing in her to Baffin's Bay, found the great opening of Hudson Strait, and with high hope that his goal was now in view followed it westward into Hudson Bay. Here he coasted south to what we term James Bay, and, after a comfortable winter, resumed his examination of the west coast, wherepon the majority of his men mutinied, set Hudson and several sick men adrift in a rowboat, and turned back. Most of the

mutineers died, but the vessel was finally taken back to London, where the murderers were promptly questioned and nearly as promptly hanged."

Russians, also, in the earlier part of the 17th Century were exploring their own northern verges. Cossack voyageurs had found the northeastern point of Asia, and Peter the Great employed **Vitus Bering** to determine the unknown boundaries of Asia, and ordered him to ascertain whether or not, the two continents were connected. He started in 1725, but was dilatory and only went so far as a point from which he could see land, neither to the east or west. Both his lieutenant and himself touched on the American coast, but he never saw either the sea or the strait that bears his name. In 1741 he was wrecked on that one of the Aleutian group, now called Bering Island, and died there of exhaustion.

Whaling expeditions were being fitted out with better and better regard for conditions, as the deep-sea industries carried mariners more and more into the northern waters; and as the fur-trade was leading the Hudson Bay Company further north, on land, England bestired herself and sent out several expeditions.

Sir John Barrow, for whom several Arctic places are named, promoted some of them, being much interested in exploration. He wrote in 1818 a book, "Arctic Voyages," which discredited the discoveries of the last English explorer, Wm. Baffin; but **Sir John Ross,** despatched from England in command of an expedition in that same year, confirmed Baffin's assertions, as far, at least, as Cape York, and reported so many things of value that more than ever commercial enterprise was interested in the results of Arctic discoveries.

A **William Scoresby,** first introduced to Greenland waters in his father's whaler, as chief offictr of the *Resolution*, took his ship up to 81 degrees, 30 minutes N., in May, 1806. An English physicist, he studied, in his several voyages, the meteorology of the Polar Regions, as well as its natural history, and his Arctic papers roused a desire to again search for the "Northwest passage." On his last voyage, in 1822, he surveyed 400 miles of the east coast of Greenland.

When Sir John Ross had first sought the Northwest passage and had been turned back by mountain-like clouds apparently barring his way out of Lancaster Sound, another Englishman, **Sir William Edward Parry** was with him. The latter believed that the search had been prematurely given over, and in 1819 returned to the Arctic with the *Griper* and *Hecla,* and passed through the Parry Archipelago. He traversed Lancaster Sound, proving that Ross' theory that it was a land-locked bay was erroneous, and explored and named Barrow Strait, Prince Regent Inlet, and Wellington Channel. He worked his way into Melville Sound and to Melville Island, where he wintered, 1819-1820. He had won the £5000 offered by Parliament by crossing longitude 110 degrees W., "while yet further to the west the encroaching land formed Banks Strait, where-through these channels open into the polar ocean."

Although he tried to force his way out through these channels to the Bering Strait, the ice prevented him. He made two further voyages, taking the *Hecla* each time, but added little to his former successes, and left one of his ships, the *Fury,* in the Arctic. He also attempted to find the Pole, by sledging from Spitzbergen, expecting to find a solid field of ice, and reaching 82 degrees, 45 minutes N., in 1827. His journals are very readable and contain careful descriptions of Eskimo life and customs.

"Meanwhile (1819) another navy officer, who was ardent in the scientific branches of his profession, as well as distinguished in seamanship and naval warfare, and who had acquired Arctic experience under Buchan in the ill-starred expedition of 1818, was sent overland to coöperate with others in defining the mainland coast of America. This was **Lieutenant John Franklin**—a name destined to become one of the most famous among the explorers of the frozen north. For several years he and his parties lived and travelled among the Eskimos, tracing the coast-line from a considerable distance east of the mouth of the Coppermine River westward almost to Point Barrow, Alaska, where they came within one hundred and forty-six miles of meeting Beechey's coöperative examination by sea from Bering's Strait; and it was out of these trips that we got the valuable treatises upon the natural history of British America, published by his assistants Hearne and Richardson. This ended in 1826."

Capt. John Ross, and his nephew James, who had been in the Arctic before, with his uncle, and with Parry, made a second expedition in 1829, getting through Lancaster Sound, and profiting by stores which Parry had left there, a precedent which many ex-

plorers have followed, they went as far as Captain Parry had done. John Ross added largely to the details of his map, but curiously failed to recognize Bellot Strait as a thoroughfare, and so missed the thing he was in search of. Ross discovered Boothia Felix; and during the three winters spent on its eastern shore, the younger Ross, by sledging, discovered Franklin Passage, Victoria Strait, and King William's Land, and largely explored their coasts; but his most important work, "giving imperishable renown to his name," as Greely declares, was the determination of the position of the north magnetic pole on the west coast of Boothia Felix.

They stayed for five years, at last abandoning their vessel, the *Victory*, and returning by a whaler.

In the meantime, in 1833, an English expedition commanded by **Captain C. Back,** had gone overland in search of Ross; and, recruited by Hudson's Bay Company men of experience, had descended The Fish River,—that "Back's Fish River" towards which the dwindling band of survivors of the Franklin expedition struggled—to its mouth, thus determining its course, but failed to find Ross.

By similar overland journeys from their trading-posts on Great Slave Lake and elsewhere, the Hudson's Bay Company's men, especially Simpson, Dease, and Rae, connected various points of the coast, so that before 1850 it was known with substantial accuracy from Melville Peninsula to Bering Strait. In much the same way Russian sledge-travellers had traced the northern Asiatic coast by descending to the mouths of rivers; but no ship had yet succeeded in passing Cape Chelyuskin, the northernmost point of Asia or any continental land.

The ships *Erebus* and *Terror*, which had returned from the Antarctic with Sir James Ross, carried **Sir John Franklin** out of England, in May, 1845, to search for the "Northwest Passage" again. In July they were spoken by a whaler off Lancaster Sound, and then disappeared.

Anxiety over the long silence at length aroused the people of England and the United States to begin a search for them which lasted through many years. It was fruitless as to its first object,—the rescue of Franklin or any survivors,—but it gradually cleared up the sad mystery, and it was the means of learning all, and more than all, that Franklin sought to ascertain.

The search began by the despatch, early in 1848, of Sir James Ross in two ships, *Investigator* and *Enterprise,* which wintered near the northeast point of North Devon, and returned the following year with no tidings, although they afforded the second officer, Lieutenant F. R. McClintock, an opportunity to acquire a knowledge of sledging, which he afterward used to advantage. This failure only aroused England to renewed efforts.

Many ships were started out at once, and also parties overland. The *Herald* and *Plover,* during 1848 and 1849, scanned the whole coast from Bering Sea to the mouth of the Mackenzie, and discovered Herald Island. Following them, in March, 1850, went the *Enterprise* under **Collinson,** and the *Investigator,* under **Sir R. J. LeM. McClure,** the latter coming from the Pacific through Bering Strait. This commander worked his way eastward north of British America, and through the narrow Prince of Wales Strait until he reached Princess Royal Islands, where he wintered. Here he was only thirty miles from Barrow Strait; and when he had climbed a high hill and saw its ice gleaming in the distance, he had in reality discovered the Northwest Passage. Yet he was not the first, as we now know, for when the survivors of Franklin's ships, in their attempt to escape, had reached Cape Herschel, they, too, saw this same passage they had been sent to find, but then, as now, it was closed by perpetual ice. The next summer was spent in a fruitless struggle to get north along the western side of Banks (or Baring) Land, in which he succeeded only far enough to get frozen in so firmly on the north shore of that great island that even the summer warmth did not release his ship. He would have perished had it not been that musk-oxen were plentiful; and by the spring of 1853, it was plain that the *Investigator* must be abandoned.

The *Enterprise* meanwhile had followed McClure in the spring of 1851, and passed two years in searching every shore and passage she could find, while her men made sledge-journeys far and near, as McClure's men were doing, and once came within a few miles of Point Victory, where Franklin's remains would have been found. At last, in the spring of 1854, she succeeded in making her way back along the American coast, and returned to England, completing one of the most remarkable of Arctic voyages.

The search for Franklin had brought America into the Arctic waters, having

placidly neglected, heretofore, any great effort to survey her own northern boundaries.

An expedition under **Lieutenants De Haven and Griffiths** in 1850, was fitted out by Henry Grinnell and discovered Grinnell Land.

With them was a young physician and traveler, **Dr. Elisha Kent Kane,** who persuaded Mr. Grinnell to send him again to the north, less to search for Franklin, whom he had despaired of, than to prosecute explorations in higher latitudes. In 1853, in command of the little brig *Advance,* manned principally by whaling men, he left New London, Conn., and made his way straight up to the head of Baffin's Bay, which narrows northward into Smith Sound, where, on the eastern, or Greenland, shore of its expansion, since called Kane Basin, he was stopped by ice and remained a prisoner until rescued in 1855.

Dr. Kane wrote the histories of these expeditions, and especially of the latter one, in books so charmingly expressed, and abounding in such novel information, that they were read like romances in every home in the land, and did more to fire the ardor for Arctic discovery which has ever since glowed in this country, than anything else that had been said or done.

Another fleet was sent out to search for Franklin in 1852. The old haphazard ways had given place to very systematic methods of advance and rescue; but steam was little employed as yet, because of the trouble and cost of supplying coal, although two small steam vessels, as tenders, accompanied this, the largest and most bountifully equipped expedition that had yet started out. The fleet, under command of **Sir Edward Belcher,** proceeded through Lancaster Sound, beyond which they scattered somewhat, and spent the first winter in extensive sledge-journeys, during which they discovered (by a message that McClure had left on Melville Island) where the *Investigator* was imprisoned, and rescued all its people in June, 1853.

Little of the Franklin expedition was discovered by sea, so far, although his winter quarters of 1845-46, had been located at Beechey Island. The discovery of Franklin's fate was made by land travelers. As early as 1854 **Dr. Rae** and a party of Hudson's Bay Company's men had traveled over land and ice to King William's Land, proved it an island, and heard stories of the death by famine and cold of white men who could be no other than the Franklin crew, as was further shown by various relics which Dr. Rae obtained from the Eskimos. The next year another party, going down the Great Fish River, recovered many other articles from Eskimos at the mouth of the river and on Montreal Island. It was evident even then that every one had perished in an attempt, nearly successful, to reach the mainland at the mouth of this river. Lady Franklin, however, despatched an expedition in the *Fox*, under command of the experienced McClintock, which at last brought back, not her husband, but the satisfaction of knowing fully his fate.

All along the west and south coast remains of articles belonging to the ships were found, and skeletons—two of them in a broken boat; and finally in a stone cairn a written record that briefly told the tale of disaster.

Sledging parties from the McClintock expedition discovered in 1859 on and about Boothia and King William's Land, relics of the ill-fated Franklin expedition. The record showed that they had in effect discovered the Northwest passage, "The point reached by the ships brought him [Franklin] to within a few miles of that attained from the westward by the explorations of earlier years; he had indeed all but traversed the entire distance between Baffin's Bay and Bering Strait." McClure, later, had, by sledging around the obstructions, quite completed the passage.

In the course of the search for Franklin, the islands and channels of the polar seas north of British America, had become so thoroughly explored that there was little left to do; and the impracticability of the "Northwest Passage" by reason of the perpetual ice being shown, attention became fastened on the efforts to reach the Pole. Much knowledge as to the fitting out of polar expeditions, and the improvement of food supplies, helping to prevent the dreadful disease, scurvy, which had killed so many adventurers, aided the explorers.

One American, **Charles F. Hall,** lived with Eskimos near Cumberland Sound, where he found the remains of a stone house built by Frobisher in 1578. Again, from 1864 to 1869, he was living with the wandering Eskimo north of Hudson's Bay, preparing himself to undertake an expedition which may be said to be the first whose avowed object was to try to reach the North Pole. The United States government furnished him the steamer *Polaris,* and a small but ef-

ficient body of scientific assistants, one of whom was Emil Bessels. The *Polaris* passed through Smith Sound, and after completing the exploration of Kennedy Channel, and discovering that beyond its expansion into Hall Sound, it continued straight northeastward, forming Robeson Channel, Hall stopped his ship and by sledge-journeys reached Cape Brevoort, above 82 degrees N., whence he could see the open polar sea. This was not only far byond any previous northing, but his work added immensely to our knowledge of both Grinnell Land and northwestern Greenland, and prepared the way for further successes.

This sledge-journey was, however, too great a strain, for he had hardly returned to his ship when he sickened and died. The next season (1872) **Dr. Bessels and Seargeant Mayer** reached on foot 82 degrees, 09 minutes N., a few miles farther than Hall. This accomplished, an attempt was made to return, but the steamer was soon inclosed in the pack, and drifted helplessly southward for two months, until off Northumberland Island, when a violent gale loosened the pack and nearly destroyed her.

A surgeon, **Isaac I. Hayes,** who had accompanied Kane in a second expedition sent by Grinnell, asserted that he was convinced of the xistence of an open polar sea, and fitted out an expedition in 1860. The party wintered at Foulke Fiord, latitude 78 degrees, 18 minutes, near Littleton Island,and on May 18, 1861, reached a point which Hayes placed at latitude 81 degrees, 35 minutes, N., longitude, 70 degrees, 30 minutes W., though the correctness of his observation has been called into question.

The seas and archipelagoes north of Europe were being questioned, all this time, as well as those north of America. The Norwegian fishermen had been familiar with Spitzbergen waters from long ago, but it was not until 1863 that the group was circumnavigated. The next year **Captain Tobieson** sailed around Northeast Land, and in 1870 Nova Zembla was circumnavigated, and the mouth of the Obi reached.

The men who did these feats were sealers or shark-fishers in small stanch Norwegian schooners, which flocked in Barents Sea at this period, and they furnished invaluable material, as did the whalers and sealers of American and Scotch ports, for the ice-pilots and crews of the scientific expeditions which now began to go to the north; moreover many of the commanders were trained by amateur service in such vessels.

Julius von Payer, who went to Greenland in 1869 and, in the next year went in a German expedition towards the North Pole, exploring the Arctic Ocean, east of Spitzbergen, was an Austrian painter as well as staff-officer. He was one of the leaders (the other being Weyprecht), of an Austrian expedition in 1872-74, which discovered and explored Franz Josef Land, although it did not reach the Pole it desired. After his return he painted great canvases, dealing with Arctic episodes, notably the Franklin disasters.

Spitzbergen was thoroughly explored, and charted, by **Baron Nils A. E. Nordenskjöld** of Sweden, who alternated these trips with those to Greenland in 1870, and 1883, exploring the interior of that island. In 1878-9 he attempted the "Northeast Passage."

He obtained and outfitted the steamer *Vega*, and arranged that a smaller supply-steamer, the *Lena*, should accompany him as far as the mouth of the river Lena—a bold proposition in itself, for that was a thousand miles beyond the Yenisei. Nevertheless, this program was carried out; for leaving Gottenborg on July 4, 1878, a month later they were traversing the Kara Sea, and on August 19 passed Cape Chelyuskin, which, up to that time, had defied all attempts and has since closed the gate to all but the daring Nansen. A week later the mouth of the Lena was reached, and the little tender, unloading her coal and other stores into the depleted hold of the *Vega* turned west, and actually sailed back to civilization uninjured.

The *Vega* then hastened on eastward, and came near getting right through the Bering Strait in that one season; but at the end of September the men found themselves frozen into the ice off North Cape only one hundred and twenty miles from Bering Strait. Here they were near shore, the country was inhabited by Tchuktches—a nomadic people, with herds of reindeer, who take the place in Siberia of the Eskimos of Arctic America; and the time was well spent in gathering a knowledge of these people and their country, and in making very valuable collections in zoölogy and anthropology.

It was not until July 18, 1879, however, that their prison-gates opened, and the *Vega* steamed on. These waters were familiar enough to navigators; and Nordenskjöld proceeded straight east, passed down through Bering Strait on the next day but one, and, furthermore, made for home

h the Suez Canal, having an accurate
dge of winds, ocean-currents, coast-
and the like, of the Polar Seas, north
Russian Empire.

he same year, in 1879, an American,
l lieutenant, **George W. DeLong,** was
into the same waters, in command of
annette expedition, organized by J. G.
tt, but authorized by the United
She crossed the *Vega*, bound home,
it seeing her as she sailed from San
sco, attacking the problem of the
least Passage" from the eastern end.
the Siberian Cape, Serdze Kamen,
ig steamed northward until he reached
grees, 35 minutes N. in September,
There he was caught in the ice, and
l northwestwardly up to 77 degrees,
nutes, past the northern margin of
gell Land, then discovered to be an
The foredoomed Jeannette was then
d in June, 1881. The crew, however,
d, and dragged themselves and their
e, boats and sledges, on to the ice;
orning the camp was aroused by the
n the watch crying: "Turn out if you
o see the last of the Jeannette—there
es| Most of us," the ghastly record
ues, "had barely time to rise when,
the rattling and banging of her tim-
ind iron work, the ship righted and
almost upright; the floes that had
in and crushed her slowly backed off.
s she sank with slightly accelerated
ty the yard arms were stripped and
upward parallel to the masts, and
e a great gaunt skeleton, clapping its
above its head, she plunged out of

would be a sad task, were it possible,
ite here the frightful hardships of that
y through the fast-gathering Arctic
toward the bleak coast of Siberia.
ing passed the islands, open water
ound, and the starving men embarked
ir boats for the mouth of the Lena;
on they were separated in a storm,
ach one proceeded as best he could.
oat foundered in the first gale. An-
under G. W. Melville, reached an
n mouth of the river and ascended it
Russian village. A third boat, with
ig and others, also reached the Lena
but only two seamen were able to
d afoot to Bulun, a far-away Russian
nent. Melville heard of this, and
haste to start out searching parties,
ey were too late. DeLong and his
ad died of exhaustion, and it was not
until the next season that their bodies and records were fully recovered.

Perhaps no better picture of the terrors of the Arctic and its stabbing cold can be found than that which is given by Melville, describing the place where he found the De Long party: "A cold, barren plateau, between a small outlying promontory and a bleak weather-riven rock of red syenite reaching to the skies, on which even the mosses and lichens would scarce grow. The raging of the wind and the pitiless sea, and the roar of the black water of the bay dashing over the ice-foot, made the lonesome picture look colder and more appalling. Drifts of ice and snow choked the ravines and hollows; but, saving ourselves and the famished, skeleton-like survivors, not a living thing appeared on the whitened landscape. The region truly seemed to be the most desolate on the face of the earth. It looked as though the curses of 10,000 witches had descended upon and blasted it, and even the birds would not dare to take their flight across the lifeless land, lest they, too, fall victims into the death-gap below.

"Struggling up the valley of death against the frantic wind from the low point to the westward of the camp, where we managed with difficulty to effect a landing in our whaleboats, we first came upon the remains of the winter habitation, a parallelogram of four walls about three feet high built of loose stone, the inside dimensions being 18 by 22 feet, with a tunnel or covered way facing the mountain to the southward. This hut had been roofed over with the whaleboats turned upside down and covered with the sails and tent cloths; the smoke flue made of old tin kettles bound with bits of canvas was thrown to one side, and water had risen in and about the wretched dwelling place to a height of eight inches, concealing much of the foul evidence of squalid misery in which its poor occupants had lived. Cast-off fur and cloth clothing, empty tin cans, and the sickening filth of twenty-five men for nine months lay heaped and scattered about; a veritable Augean scene."

The castaways struggled towards two small islands, to the eastward that they had previously visited, losing one of the three parties on the way, and in doing so, they discovered another, "Bennett," the northernmost of the New Siberia Group.

In the meantime, a search party had been equipped by the United States Government, and the steamer *Rodgers*, commanded by **Lieutenant Berry,** in 1881 reached and ex-

amined Wrangell Land, and then went north farther even than Collinson, the commander of the *Enterprise*, reaching 73 degrees, 44 minutes, the highest point yet attained immediately north of Bering Strait, where the paleocrystic ice spreads much farther from the Pole than on the American side. But he found no trace of the *Jeannette*, and himself had a hard time getting home, for the *Rodgers* was burned in her winter quarters.

Nevertheless, the results of this unfortunate DeLong expedition were important, physically and geographically. "They covered some 50,000 square miles of polar ocean, and clearly indicate the conditions of an equal area between their line of drift and the Asiatic coast." DeLong believed the Siberian ocean to be a shallow sea, dotted with islands; and his conclusions have been confirmed by the admirable scientific work since of Toll, Bunge, and other Europeans who have explored the Liachoff Islands and other places in that part of the Arctic realm.

The steady drift of the *Jeannette*, helpless in her ice pack, moreover, gave a clue to the probable direction of the currents about the Pole, which led Nansen to believe that he could drift right across the North Polar Sea.

While the fickleness of Siberian Polar Seas, was being evidenced by the slipping through of one ship and the crushing of another, the North American frigid zone was again being investigated.

An Englishman, **Sir George S. Nares,** in 1875, took the *Alert* and *Discovery* far up Smith Sound to 82 degrees, 27 minutes N., further north than any other ship, and his lieutenant, **Markham,** travelling on sledges, made 83 degrees, 20 minutes N. Much interest, apart from the mere exploration of unknown lands, was aroused by the reports of scientific studies made by members of this expedition.

Frederick Schwatka, a graduate of West Point, commanded the last land-search for traces of the long-lost Franklin party, 1878-1880, making a famous sledging trip; exploring carefully the continental coast line of British America; and crossing to King William's Land, where he found the saddening remnants of the expedition he sought. Later he explored the course of the Yukon River.

By far the most famous of the later expeditions into the Polar Circle is that of Lieutenant, now **General A. W. Greely.**

This expedition was one of several acting in concert, according to a scheme suggested by Weyprecht and perfected at international congresses of interested men meeting at Hamburg in 1879 and at St. Petersburg in 1882. This plan was for the establishment by various governments of a ring of stations as far within the Arctic circle as practicable, where simultaneous daily observations of the weather, magnetic conditions, tides, currents, etc., might be made.

Lieutenant Greely, with twenty-four companions, ensconced himself at Discovery Harbor, 81 degrees 44 minutes N. in Grinnell Land, established his station, and wintered there for two years, making valuable meteorological observation, and geographical discoveries, the latter effected by various sledging trips into the interior of Grinnell Land and even to Greenland.

Lieutenant J. B. Lockwood carefully explored the Greenland coast as far as Cape Britannia, overcoming the numerous difficulties until he reached in May, 1882, Lockwood Island, 83 degrees, 24½ minutes N.

This was then the highest northing, by land, but they could see land several miles northeast, which they named Cape Washington, the highest known land, and toward the north could overlook a polar sea to within three hundred and fifty miles of the Pole. Even here plants were numerous, and foxes, hares, lemmings, and ptarmigans existed. The three heroic travelers returned safely, reaching headquarters on June 3d. Another expedition by Lockwood and his two companions explored and located the west coast of mountainous and glacier-girt Grinnell Land, where the musk-ox and Eskimo hunters range to the northern border.

The summer of 1883 brought no reliefship, and the plan of escape must be put into execution at once. A ship had, in fact, tried to reach Greely in 1882; but, failing, had left supplies of provisions at Cape Sabine and elsewhere. In 1883 another relief expedition sent north was dreadfully mismanaged, and finally the ship itself was lost, and, instead of leaving supplies, took away all that had been stored at Cape Sabine—the precise point where they were to be needed.

Leaving Lady Franklin Bay in August in open boats, Greely managed, after desperate exertions, to get near Cape Sabine, and safely landed on Bedford Pim Island, on the northwestern shore of Smith Sound, October 15, 1883. Of the misery that followed, let Greely himself tell us:

Winter had begun, the polar night was

mminent, clothing in rags, fuel wanting, nd forty days' rations must tide over 250 lays, till help could come. The main party put up a hut of rocks, canvas, boats and snow-slabs, while selected men scoured the coasts for caches, sought land-game, and watched seal-holes, until utter darkness drove all to the hut. Scientific observations were unremittingly made, amusements devised, a spring campaign planned, and the returning sun found only one dead. Efforts to cross Smith Sound failed, and a hunting trip to the west found a new (Schley) land, but no game. Finally game came so inadequately that food failed, and one by one men died—Jens seal-hunting, and Rice striving to bring in a cache. Courage and solidarity continued; and if Greely gave to the maimed Ellison double food while it lasted, he did not hesitate to order in writing the execution of a man serving under an assumed name of Henry, who repeatedly stole sealskin thongs, the only remaining food. Flowers, plants, seaweed, and lichens eked out life for the six, till June 22, 1884, when the relief-ships, *Thetis* and *Bear,* under Captain W. S. Schley and Commander W. H. Emory, rescued them. Records, instruments, and collections, were saved to tell the story of an expedition that failed not in aught intrusted to it, and whose members perished through others.

While Greely was retreating southward in 1882, a Norwegian, **Dr. Fridtjof Nansen,** was voyaging in the Jan Mayen and Spitzbergen seas in a sealing ship, and in 1888-89, he crossed Greenland on snow-shoes. He noted various fragments of the *Jeannette* wreckage, drifted on the coast of Greenland, which must have floated thither on Arctic currents from the position, off Siberia, where she was wrecked.

This was only a part of the indications that convinced Dr. Nansen that current flowed across the unknown polar space from the neighborhood of Alaska to the northeast coast of Greenland, and thence became the great Arctic current that we recognize south of Iceland. He argued that if a vessel could find this current north of eastern Siberia, she would be moved with it until she emerged into the Atlantic. Incidentally she might drift directly over the Pole.

With this in view, he raised funds to build and equip a small wooden vessel, the *Fram,* furnished with both steam and sails, which was so shaped by the roundness of her bottom, and so amazingly braced and strengthened within, that before any "nips" of the ice would crush her, the pressure would lift her out of water—as, in fact, happened many times in the course of her wonderful excursion. Nansen chose twelve companions, and, though some of them were educated men of science, others skilful sea-captains, and others common sailors, all lived and worked together in one cabin as brothers—the happiest and healthiest lot of men that ever ventured into the hyperborean kingdom of desolation.

In September, 1894, the *Fram* was frozen into the great polar pack ice, north of the New Siberian Islands, and thence she drifted with the floes, forward and back, for three years. In March, 1895, Nansen and Lieutenant Johansen left the *Fram,* and made a rush for the Pole with dog-sledges, with the intention of returning, to Franz Josef Land. They could take only a small amount of provisions with them, but in spite of rough ice, they reached latitude 86 degrees, 14 minutes N., within 272 miles of the elusive North Pole, nearer to it by 184 miles than any other man had gone.

They reached Franz Josef land, and returned thence to Europe with the Harmsworth expedition. The *Fram,* herself, reached 85 degrees, 57 minutes, and ultimately got out of the ice and back to Europe, arriving a week after Nansen's return. Valuable scientific information resulted from the observations made during the drifting voyage.

Robert E. Peary, a United States naval officer has made desperate efforts to reach the Pole. He went to Greenland in 1886, 1891-2 discovered Peary Strait, on the north coast of Greenland, and followed the coast to Academy Land. He proved by sledge journeys, that Greenland was an island, and enabled map makers to fill in its northern boundary.

On this trip he penetrated above the eighty-second parallel. In 1900 he took the east coast of Grinnell Land, reaching the eighty-second parallel. In 1905-06 he skirted the north coast of Grinnell Land, made his winter quarters at Cape Sheridan, Grant Land, and when ready to start for the Pole moved past Cape Hecla, on the west, and from there to Cape Moss, from which he started his attack on the Pole.

All of these expeditions led over what has since become known as the American route, and which seems to offer the best foundation for a polar expedition, as it is approximately one hundred miles nearer the goal

than the Spitzbergen base, which has been used so often heretofore.

The advantages of the American route are proved by Mr. Peary's trip in 1906, when he attained the highest point ever reached by man at that time, 87 degrees, 6 minutes, at about the forty-ninth meridian of longitude west. This was attained on April 21, and the explorer's path was almost a straight line from Cape Moss to latitude 84 degrees, 36 minutes, where he discovered what he afterward concluded to be a body of permanent open water during the summer months. He was held up here by an open lane two miles wide, and it was six days before he was able to get across.

The **Duke of the Abruzzi,** is one of the Italians who have ventured into the inclement north. In his whaler, the *Stella Polaris,* he sailed for Franz Josef Land, and wintered at Teplitz Bay, 1899-1900. Thence a sledging expedition carried a party up to latitude 86 degrees, 33 minutes, surpassing Nansen's record, but not equalling that of Peary, in 1906.

Anthony Fiala, in 1901-1905, in the Baldwin-Ziegler, and the Ziegler expeditions, endeavored to reach the Pole, and, in 1903-1905, did succeed in reaching latitude 82 degrees, 4 minutes N., having struggled with adverse conditions. He surveyed the Franz Josef Archipelago, and found there three large islands.

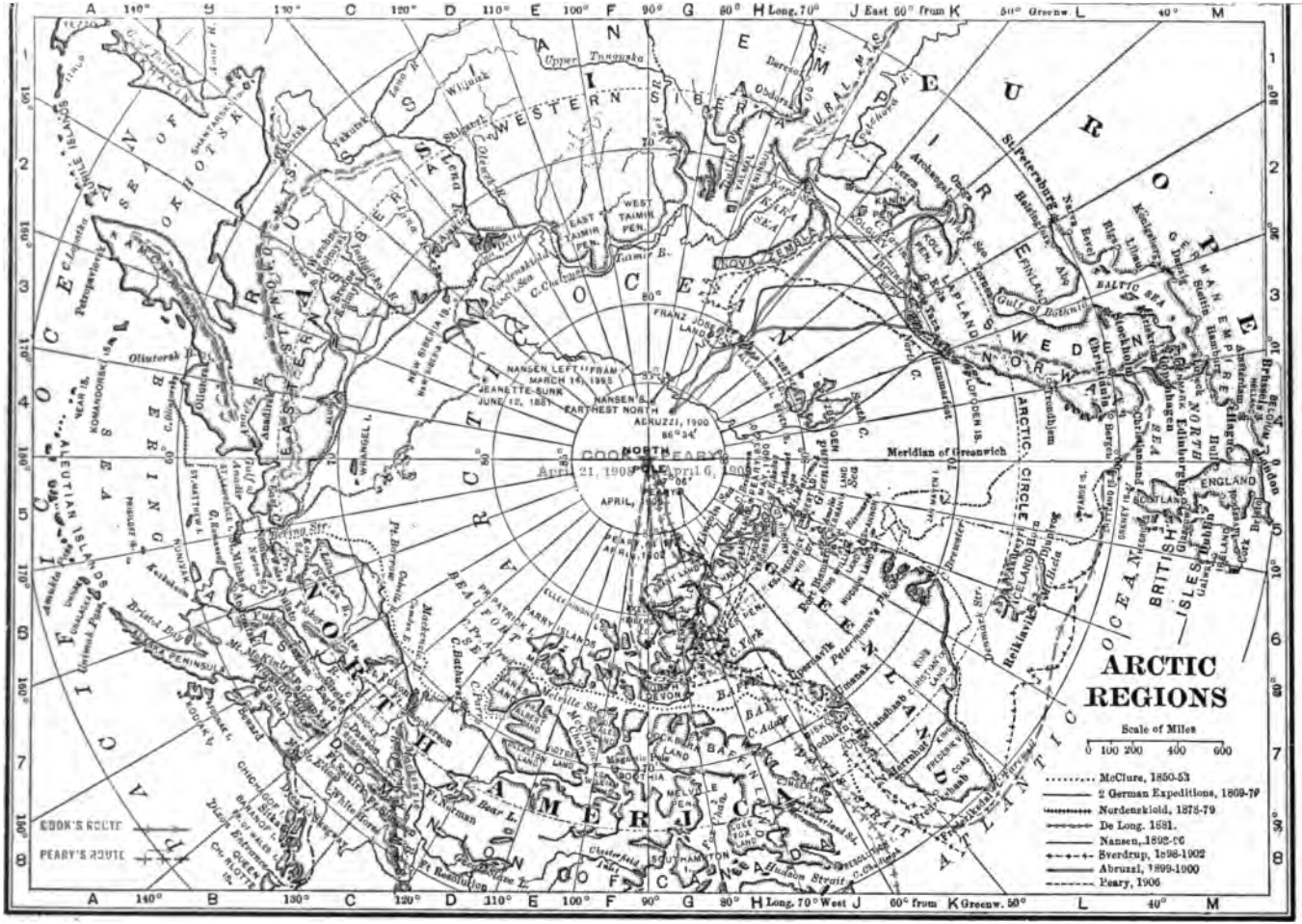
Fiala is an American, and another American, **Walter Wellman,** has discarded the usual methods of Arctic exploration, either by land or water, for that of the air. But his attempts to leave Spitzbergen by dirigible balloons, have so far been failures. He has only proceeded 32 miles from the starting point. The attempt of **S. A. Andrêe,** a Swede, to whirl to the Pole on aerial currents was more tragic. He left Dane's Island, one of the Spitzbergen group, 79 degrees, 40 minutes N., in July, 1897. His balloon rose out of the varying under-currents and swung about like a carrier pigeon getting its bearings. Then it floated off due north before a stiff breeze that carried it at an even speed of about twenty-two miles an hour. Forty-six hours later Andrée despatched this message by carrier pigeon to the Aftonbladet, Stockholm:

"July 13, 12:30 P. M., 82.2 degrees north latitude, 15.5 degrees east longitude. Good progress toward the north. All goes well on board. This message is the third by carrier pigeon. Andrée."

No other trace of this daring aerial navigator ever has come back to civilization.

Another Scandinavian, Captain **Roald Amundsen,** a Norseman, has for the first time actually sailed completely through the "Northwest Passage," from East to West. McClure, who came from Bering Sea, eastward, completed the passage by sledges. Amundsen, in his little walrus sloop, the *Gjoa,* carrying only seven men, left Norway in June, 1903, and without injury, or even mishap, quietly loafed through the polar seas for three years, sometimes frozen in for months, but ultimately drifted through into Bering Strait, and reported to his king in October, 1906, from Cape Nome. His voyage, aside from its successful penetration of the "Northwest Passage" was remarkable for the definite location of the magnetic Pole, in King William's Land, the Scene of the tragic end of Franklin's expedition.

Mylius Erichsen, a Danish explorer with two companions, a Mr. Hagen and Jörgen Brunlund, completed in the fall of 1907, a remarkable survey of the east or "Unknown" coast of Greenland. This survey, which was of inestimable value to the geographical world, cost the lives of all three of the sturdy party. On starting southward, they put the valuable papers in a bottle, so that by no chance would they be destroyed. Groping their way in the growing darkness of Arctic night, their strength sapped by excessive labors and privations, Hagen died on the 15th of November and Erichsen only survived him by ten days. Left alone. **Brunlund,** with the bottle tied about his neck, struggled onward. He was dying of hunger and his feet were half frozen, but by heroic effort he reached the supply depot on Lambert Land. Here he found food which sustained life for a few days but the searching party in the spring of 1908 found his body in a crevice of the rock near the food cache. Beside him were the bottle containing the survey sheets and his diary, in which were contained the known details of the expedition. The bodies of Erichsen and Hagen were never found, but if at some future time they are recovered, it is probable that even more will be learned about this coast than is now known.


ARCTIC REGIONS
Scale of Miles
0 100 200 400 600
McClure, 1850-53
2 German Expeditions, 1869-70
Nordenskiold, 1878-79
De Long, 1881.
Nansen, 1893-96
Sverdrup, 1898-1902
Abruzzi, 1899-1900
Peary, 1906
COOK'S ROUTE
PEARY'S ROUTE
NANSEN LEFT "FRAM" MARCH 14, 1893
JEANETTE SUNK JUNE 12, 1881
NANSEN & JOHANSEN FARTHEST NORTH
ABRUZZI, 1900 86° 34'
NORTH POLE April 6, 1909
Meridian of Greenwich
EUROPE
ASIA
AMERICA
ARCTIC OCEAN
ATLANTIC OCEAN
GREENLAND
ICELAND
NORWAY
SWEDEN
FINLAND
ENGLAND
SCOTLAND
BRITISH ISLES
NORTH SEA
BALTIC SEA
WESTERN SIBERIA
NOVA ZEMLA
FRANZ JOSEF LAND
SPITZBERGEN
BEAUFORT SEA
BAFFIN BAY
DAVIS STRAIT
HUDSON BAY
ALEUTIAN ISLANDS
BERING SEA
SEA OF OKHOTSK
Long. 70° West of Greenw.
Long. 70° East from Greenw.

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